



CITY OF CAMPBELL
Community Development Department

**NOTICE OF INTENT
INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
CITY OF CAMPBELL, CALIFORNIA**

Notice is hereby given of the intent of the Campbell Planning Commission to adopt a Mitigated Negative Declaration for the Abbott Avenue Subdivision, an application for a Tentative Subdivision Map (File No.: PLN2012-132) to allow creation of nine single-family residential parcels, pursuant to Public Resources Code Section 21092(b)(1), for property located at **1181 Abbott Avenue, Campbell, CA.**

The project site is generally located between Westmont and Hacienda Avenues, bisecting Abbott Avenue. The 2.6 acre site is mostly unimproved, with the exception of a single-family residence and three agricultural-era storage buildings. Abutting land uses include single-family residences to the north, east, and west, and Smith Creek to the south.

The Initial Study prepared by the City was undertaken for the purpose of determining whether the project may have a significant effect on the environment. On the basis of the Initial Study, Community Development Department staff has determined that the project will not have a significant effect on the environment due to the incorporation of certain mitigation measures, and therefore, has prepared a draft Mitigated Negative Declaration for consideration by the Campbell Planning Commission

All interested parties are invited and encouraged to submit comments in writing regarding the draft Mitigated Negative Declaration and/or attend the below described public hearing. The public review period for the draft Mitigated Negative Declaration begins on **March 5, 2013** and ends on **March 26, 2013**. Any comments must be submitted in writing, including email, to the Community Development Department by 5:00 p.m. on **March 26, 2013**. The Initial Study and draft Mitigated Negative Declaration are available for review from 8:00 a.m. to 5:00 p.m. at the Community Development Department, City Hall, 70 North First Street, Campbell, CA or online at <http://www.cityofcampbell.com/General/PublicNotices.htm>.

The Campbell Planning Commission will consider the project and draft Mitigated Negative Declaration at a public hearing to be held on **March 26, 2013**. The meeting will be held at 7:30 p.m., or shortly thereafter, in the City Hall City Council Chambers, 70 North First Street, Campbell, CA.

Please be advised that if you challenge the decision on the Mitigated Negative Declaration and/or project in court, you may be limited to raising only those issues you or someone else raised at the public hearings described in this notice, or in written correspondence delivered to the City of Campbell prior to the public hearings. Questions and written comments may be addressed to Daniel Fama, Associate Planner, at (408) 866-2193 or by email at danielf@cityofcampbell.com.

PLANNING COMMISSION
CITY OF CAMPBELL
PAUL KERMOYAN
SECRETARY



DRAFT MITIGATED NEGATIVE DECLARATION

The Community Development Director has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of the project completion. “Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Project Title: Abbott Avenue Subdivision

File Number(s):

PLN2012-133 (CEQA Review – Initial Study)
PLN2012-132 (Tentative Vesting Subdivision Map)

Project Location: 1181 Abbott Avenue

Name and Address of Project Proponent:

Duc Development c/o Kurt Anderson
120 W. Campbell Ave., Ste. D
Campbell, CA 95008

Lead Agency Name and Address:

City of Campbell
Community Development Department
70 N. First Street
Campbell, CA 95008

Contact Person(s):

Daniel Fama, Associate Planner
(408) 866-2193
danielf@cityofcampbell.com

Zoning Designation:

Current: R-1-9 (Single-Family Residential)
Proposed: No Change Proposed

General Plan Designation:

Current: Low Density Residential (less than 4.5 units per gross acre)
Proposed: No Change Proposed

Other public agencies whose approval is required: None

Surrounding Land Uses / General Plan / Zoning:

North: Single-Family Residential / Low-Den. Res. / R-1-6

South: Channelized Creek / Low-Den. Res. / R-1-9

East: Single-Family Residential / Low-Den. Res. / R-1-9

West: Single-Family Residential / Low-Den. Res. / R-1-6

Project Description: A residential subdivision resulting in the creation of nine single-family residential parcels (minimum 9,000 square-feet).

Finding: The Community Development Director finds that the project described above will not have a significant effect on the environment in that the attached Initial Study identifies one or more potentially significant effects on the environment for which the project proponent, before public release of this draft Mitigated Negative Declaration, has made or agrees to make project revisions that clearly mitigate the effects to a less than significant level.

Mitigation Measures Included in the Project to Reduce Potentially Significant Environmental Effects to a Less Than Significant Level:

Mitigation Measure AES – 1

1.1. *Prior to recordation of the final subdivision map, or concurrent with the submittal of Site and Architectural Review Permits for individual residences on the approved new parcels, whichever occurs first, the applicant shall submit a comprehensive landscaping plan for the entire subdivision that shall specify landscape treatment for front yards, back yards, and stormwater retention areas. The plan shall be consistent with the City Landscaping Requirements (CMC § 21.26 and the State Water Efficient Landscape Requirements (California Code of Regulations, Title 23, Ch. 2.7, Div. 2).*

Mitigation Measure AIR – 1

- 1.2. *Use dust-proof chutes for loading construction debris onto trucks.*
- 1.3. *Water or cover stockpiles of debris, soil, and other materials that can be blown by the wind.*
- 1.4. *Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.*
- 1.5. *Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction site.*
- 1.6. *Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets, as directed by the City Engineer.*
- 1.7. *Enclose, cover, water twice daily or, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).*
- 1.8. *Install erosion control measures to prevent runoff from the project site.*

Mitigation Measure CUL – 1

1.1. *If archaeological or paleontological resources are encountered during excavation or construction, construction personnel shall be instructed to immediately suspend all activity in the immediate vicinity of the suspected resources and the City and a licensed archeologist or paleontologist shall be contacted to evaluate the situation. A licensed*

archeologist or paleontologist shall be retained to inspect the discovery and make any necessary recommendations to evaluate the find under current CEQA guidelines prior to the submittal of a resource mitigation plan and monitoring program to the City for review and approval prior to the continuation of any on-site construction activity.

Mitigation Measure GEO – 1

- 1.1. *The applicant shall comply with the recommendations in the Geotechnical Investigation, dated September 14, 2013 by Berlogar, Stevens, and Associates. Such recommendations shall be incorporated into the project's final engineering design to minimize the damage from seismic shaking, unsuitable fill, and other geological deficiencies. The project shall use standard engineering techniques and conform to the requirements of the International Building Code to reduce the potential for seismic damage and risk to future occupants.*

Mitigation Measure HAZ – 1

- 1.1. *Prior to issuance of a demolition permit, a qualified contractor shall assess the property for presence of Lead-based paint (LBP) and Asbestos containing building materials (ACBM), and if present, prepare a plan, to the satisfaction of the Building Official, to properly manage and dispose of such materials.*

Mitigation Measure NOISE – 1

- 1.1. *Construction activities shall be limited to weekdays between 8:00 a.m. and 5:00 p.m. and Saturdays between 9:00 a.m. and 4:00 p.m. No construction shall take place on Sundays or holidays unless an exception is granted by the Building Official.*
- 1.2. *Truck routes to and from the construction site shall be established to avoid access to the project site via residential streets where possible.*
- 1.3. *All construction equipment with internal combustion engines used on the project site shall be properly muffled and maintained in good working condition.*
- 1.4. *Unnecessary idling of internal combustion engines shall be strictly prohibited.*
- 1.5. *All stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be located as far as possible from noise-sensitive receptors such as existing residences and businesses.*
- 1.6. *Prior to the issuance of building permits, the project site shall be posted with the name and contact number of the lead contractor in a location visible from the public street so that the contractor can be made aware of noise complaints.*

PUBLIC REVIEW PERIOD

Any person may file a written protest of the draft Mitigated Negative Declaration before 5:00 p.m. on **March 26, 2013**. Such protest must be filed at the Community Development Department, City Hall, 70 North First Street, Campbell, California. The written protest should make a "fair argument" that the project will have one or more significant effects on the environment based on substantial evidence.

Daniel Fama
PROJECT PLANNER

Assistant Planner
TITLE

City of Campbell
AGENCY



SIGNATURE

March 5, 2013
DATE

INITIAL STUDY

1181 ABBOTT AVENUE

*An environmental evaluation
prepared in compliance with the
California Environmental Quality Act*

Prepared by

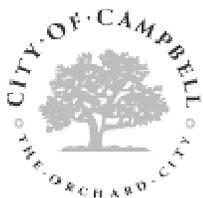
Daniel Fama
Associate Planner

City of Campbell

Community Development Department
Planning Division
70 N. First Street
Campbell, CA 95008

Public Review Period

March 6, 2013 – March 26, 2013



I. PROJECT OVERVIEW

Project Title: Abbott Avenue Subdivision

File Number(s):

PLN2012-133 (CEQA Review – Initial Study)

PLN2012-132 (Tentative Vesting Subdivision Map)

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Zoning Designation:

Current: R-1-9 (Single-Family Residential)

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General Plan Designation:

Current: Low Density Residential (less than 4.5 units per gross acre)

Proposed: No Change Proposed

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North: Single-Family Residential / Low-Den. Res. / R-1-6

South: Channelized Creek / Low-Den. Res. / R-1-9

East: Single-Family Residential / Low-Den. Res. / R-1-9

West: Single-Family Residential / Low-Den. Res. / R-1-6

Project Location: The project site is one of two large parcels located between Westmont and Hacienda Avenues, bisecting Abbott Avenue (reference Pg. 3 – Location Map). The 2.6 acre site is mostly unimproved, with the exception of a single-family residence and three agricultural-era storage buildings (reference Pg. 4 & 5 – Site Photographs and Existing Site Configuration). Abutting land uses include single-family residences to the north, east, and west. To the south is Smith Creek, a channelized creek owned and managed by the Santa Clara Valley Water District. Within the broader vicinity, the project site is located within the City’s "San Tomas Area", a special planning area governed by the San Tomas Neighborhood Plan.

The City of Campbell Zoning Map classifies the project site as R-1-9 (Single-Family Residential). The corresponding General Plan Land Use Designation is *Low Density Residential (less than 4.5 units/gr. acre)*.

Project Description: The project is an application for a Vesting Tentative Subdivision Map to allow subdivision of the project site into nine single-family residential parcels, consistent with the existing Zoning and General Plan designations. The Tentative Vesting Subdivision Map (reference pg. 6) depicts the creation of nine conforming residential parcels ranging in size from 9,000 to 13,000 square feet (as noted in the table right).

AREA SUMMARY TABLE		
LOT	NET AREA (SF)	GROSS AREA (SF)
1	9,077	13,112
2	9,405	11,366
3	10,849	11,838
4	13,203	13,879
5	9,186	11,054
6	9,005	10,790
7	9,092	10,333
8	11,307	11,831
9	9,170	15,279
PARCEL A	1,772	1,772
PARCEL B	922	1,286
PUBIC STREET	19,552	-
PROJECT TOTAL	112,540	112,540

Construction of a new public roadway and pedestrian pathway is also proposed.

Access to the subdivision would be taken from the north side of Abbott Avenue, south of Westmont Avenue. The roadway would terminate in a cul-de-sac, with pedestrian/bicycle access being provided to the southern side of Abbott Avenue connecting out to Hacienda Avenue. The proposed roadway is shown at a 40-foot right-of-way with rolled curb with no sidewalk or landscaping strip. The paved roadway will be 39 feet wide, allowing for two-way traffic and parking on both sides of the street.

Anticipated development includes construction of single-family residences on each newly created parcel. However, review of the individual residences will be under separate development applications not yet submitted to the City. However, per CMC Sec. 20.32.060, a Vesting Tentative Subdivision Map application must include information on anticipated future development. The following table provides the anticipated size and height of future residences, indicating that new residences may be between 4,000 and 4,700 square-feet (including garage areas).

SITE STATISTICS								
BUILDING PLAN	PLAN 1A	PLAN 1XB	PLAN 1C	PLAN 1XC	PLAN 1D	PLAN 2A	PLAN 2XB	PLAN 2XC
ANTICIPATED BUILDING HEIGHT	27'-4"	26'-9"	27'-0"	27'-4"	26'-10"	28'-0"	27'-5"	28'-0"
ANTICIPATED BUILDING SIZE	4,077 SF	4,638 SF	4,077 SF	4,597 SF	4,119 SF	4,655 SF	4,047 SF	4,048 SF
ANTICIPATED FAR	0.43	0.35	0.45	0.42	0.45	0.41	0.45	0.44
LOT #S	2	4	7	3	1 AND 5	8	6	9

Location Map



Site Photographs

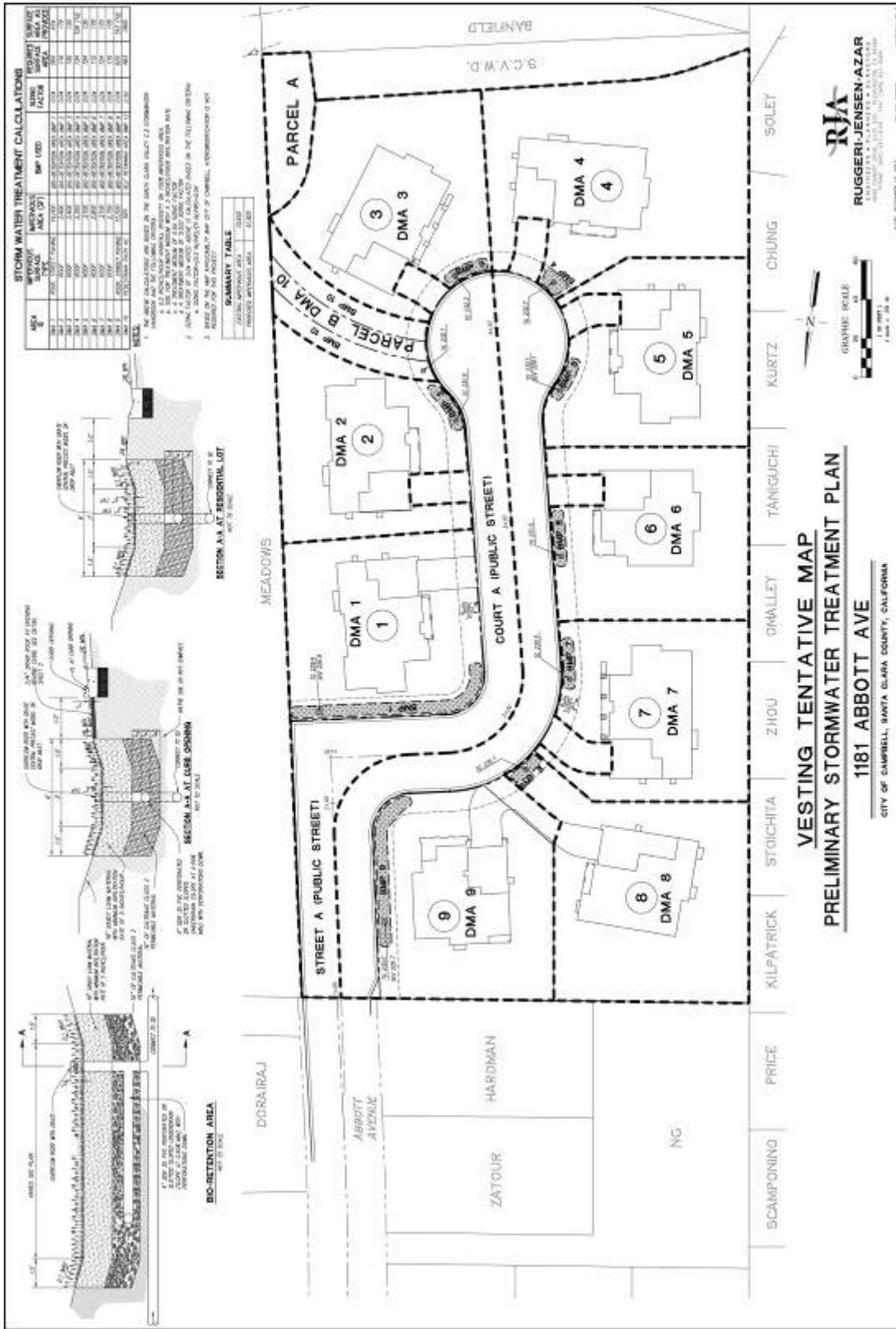


VIEW OF THE SITE LOOKING NORTHERLY



VIEW OF THE SITE LOOKING SOUTHERLY

Preliminary Stormwater Treatment Plan



II. ENVIRONMENTAL IMPACT EVALUATION:

The following evaluation has been prepared to determine if the proposed project may result in a “significant impact” on the environment. For the purposes of this study, a significant impact means a substantial or potentially substantial change in the physical environment. The following terms used in the evaluation are defined as specified below:

"Potentially Significant Impact" means that there is either substantial evidence that an effect may be significant or, due to lack of existing information, may have potential to be a significant effect.

"Less than Significant With Mitigation Incorporated" means the incorporation of one or more mitigation measures can reduce the effect from potentially significant to a less than significant level.

"Less Than Significant Impact" means that there is sufficient evidence available to determine that the effect is less than significant and no mitigation is necessary to reduce the impact to a lesser level.

"No Impact" means that the effect does not apply to the proposed project, or clearly will not impact nor be impacted by the project.

A description of the proposed mitigation measures and the factual data or evidence used to reach conclusions regarding impact significance follows each section. The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Less Than Significant with Mitigation Incorporation" as indicated by the checklist on the following pages. The impacts of the project, as well as a recommended mitigation measures, are summarized in Section III: Recommendation and Determination.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> (1) Aesthetics
(Page 11) | <input type="checkbox"/> (2) Agriculture Resources
(Page 12) | <input checked="" type="checkbox"/> (3) Air Quality
(Page 13) |
| <input type="checkbox"/> (4) Biological Resources
(Page 15) | <input checked="" type="checkbox"/> (5) Cultural Resources
(Page 16) | <input checked="" type="checkbox"/> (6) Geology/Soils
(Page 18) |
| <input type="checkbox"/> (7) Greenhouse Gas Emissions
(Page 20) | <input checked="" type="checkbox"/> (8) Hazards & Hazardous
Material (Page 21) | <input type="checkbox"/> (9) Hydrology/Water
Quality (Page 23) |
| <input type="checkbox"/> (10) Land Use/Planning
(Page 25) | <input type="checkbox"/> (11) Mineral Resources
(Page 26) | <input checked="" type="checkbox"/> (12) Noise
(Page 27) |
| <input type="checkbox"/> (13) Population/Housing
(Page 29) | <input type="checkbox"/> (14) Public Services
(Page 30) | <input type="checkbox"/> (15) Recreation
(Page 31) |
| <input type="checkbox"/> (16) Transportation/Traffic
(Page 32) | <input type="checkbox"/> (17) Utilities/Service System
(Page 34) | <input type="checkbox"/> (18) Mandatory Findings
of Significance
(Page 35) |

1. AESTHETICS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to c): The project will alter the existing visual character of the site and its surroundings through demolition of existing structures and eventual development of nine single-family residences. However, since neither the project site nor any area, roadway, or view-corridor in vicinity of the project site, is a recognized scenic vista or scenic resource, these activities will not result in a significant environmental affect.

Moreover, introduction of residential development consistent with the broader neighborhood will improve the visual character of the area. The project is subject to various policies and strategies of the Campbell General Plan and the San Tomas Area Neighborhood Plan, intended to facilitate development that improves the visual character of the community through good design and site planning. To maintain the visual character of the project over time, **Mitigation Measure AES – 1**, will require preparation of a "master" landscaping plan to ensure a consistent landscaping treatment throughout the project.

Mitigation Measure AES – 1

1.1. Prior to recordation of the final subdivision map, or concurrent with the submittal of Site and Architectural Review Permits for individual residences on the approved new parcels, whichever occurs first, the applicant shall submit a comprehensive landscaping plan for the entire subdivision that shall specify landscape treatment for front yards, back yards, and stormwater retention areas. The plan shall be consistent with the City Landscaping Requirements (CMC § 21.26 and the State Water Efficient Landscape Requirements (California Code of Regulations, Title 23, Ch. 2.7, Div. 2).

(d): Currently, the project site has very limited lighting associated with the existing single-family residence. New site lighting is anticipated to include down-lit fixtures for new residences and lighting fixtures along the new public pathway. As all new lighting is subject to the City's Lighting Design Standards (CMC Sec. 21.18.090)—which requires lighting to be designed and installed so that light rays are not emitted across property lines—the project would not result in new sources of substantial light or glare.

2. AGRICULTURAL RESOURCES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to c): The project site had historically been used for agricultural production, but is no longer used for, nor zoned for farmland or other agricultural or horticultural purpose. Neither the project site nor surrounding properties contain farmland or support agricultural activity that could be impacted by the project. As a result, no impact to farmland or agricultural/horticultural uses will occur.

3. AIR QUALITY

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): The City of Campbell is located within the southern region of the San Francisco Bay Area air basin. The California Air Resources Board coordinates and oversees both state and federal air quality control programs in California. The management of air quality in the basin is the responsibility of the Bay Area Air Quality Management District (BAAQMD). Specifically, the BAAQMD is responsible for monitoring ambient air pollutant levels throughout the basin, and developing and implementing attainment strategies to ensure that future emissions will be within Federal and State standards.

The Bay Area Air Basin is currently classified as a “non-attainment” area for the state ozone standard, meaning that the level of ozone during a one-hour period exceeds the standard of 0.09 parts per million (ppm) on more than one day per year, excluding those occasions when a violation was caused by an exceptional event. For particulate matter less than 10 micrometers in diameter (PM₁₀), the Bay Area Air Basin is currently designated as a “non-attainment” area for the state standard. All other pollutants are designated as “attainment” or “unclassified” for federal standards and as an “attainment” area for the state standard.

The BAAQMD has established thresholds for determining whether a given project has the potential for a significant impact upon air quality. If a project exceeds the threshold(s), detailed air quality analyses are typically required, as well as review by BAAQMD staff. If a project does not exceed the thresholds, then it is assumed to have a less than significant impact upon air quality, unless there are special circumstances. For single-family residential developments, the BAAQMD has established 325- and 114-unit thresholds for operational- and construction-related air pollutants, respectively. As the project would result in creation of nine residential parcels, it is below the minimum thresholds for air quality analysis and, therefore would not conflict with or obstruct implementation of the applicable air quality plan.

(b): As the project would result in the eventual construction of nine single-family residences, construction activities such as excavation, construction vehicle traffic and equipment and wind blowing over exposed earth could generate exhaust emissions and fugitive particulate matter emissions that could affect local and regional air quality. However, concentrations of these emissions are not anticipated to be substantial, and would be temporary. Construction activities are also a source of organic gas emissions. Solvents in adhesives, non water-based paints, thinners, some insulation materials and caulking materials would evaporate into the atmosphere and would participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic

gases for a short time after its application. Construction vehicles would produce cumulatively insubstantial amounts of ozone emissions. Short-term dust could potentially be produced during excavation and construction. The BAAQMD CEQA Guidelines identify thresholds of significance for construction emissions. BAAQMD's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. With the implementation of the ***Mitigation Measure AIR – 1***, potential short-term air quality impacts associated with construction would be reduced to a less than significant level. The project would therefore, not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Mitigation Measure AIR – 1

- 1.1. *Use dust-proof chutes for loading construction debris onto trucks.*
- 1.2. *Water or cover stockpiles of debris, soil, and other materials that can be blown by the wind.*
- 1.3. *Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.*
- 1.4. *Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction site.*
- 1.5. *Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets, as directed by the City Engineer.*
- 1.6. *Enclose, cover, water twice daily or, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).*
- 1.7. *Install erosion control measures to prevent runoff from the project site.*

(c): As described above, the proposed project would not result in any cumulatively considerable net increase of ozone or PM₁₀, the two criteria pollutants for which the project region is non-attainment, under an applicable federal or state ambient air quality standard with implementation of ***Mitigation Measure AIR – 1***.

(d): The BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (e.g., children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses can include residences, hospitals, schools, child-care centers, retirement centers, convalescent homes, and medical clinics. According to the BAAQMD 'Risk and Hazard Screening Analysis Process', project sites not located within 1,000 feet of a roadway in excess of 10,000 vehicles/day AATD may assume no significant impact for risk and hazards. Vehicle trip (AATD) data provided by the City Traffic Engineer indicates that no roadway in the vicinity of the project site exceeds 10,000 vehicles/day AATD.¹ As a result, the project would not expose sensitive receptors to substantial pollutant concentrations.

(e): No element of construction or normal activities associated with single-family residences would result in creation of objectionable odors.

¹ Based on City AADT counts collected November 2009 along Westmont and Hacienda Avenues.

4. BIOLOGICAL RESOURCES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to d): According to the California Natural Diversity Database and the City's General Plan, no species identified as a candidate, sensitive or special status species, or habitat for such species are known to occupy the project site. However, due to the site's largely unimproved state, a burrowing owl survey report was prepared (burrowing owls being a "species of special concern" with known habitat within the southern San Francisco Bay Area). The report found no evidence of borrowing owls or any other sensitive or special status species. As such, the project would not interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites, or have a substantial adverse effect on any species identified as a candidate, sensitive or special status species, or habitat for such species. The project, therefore, would not result in a significant environmental effect.

(e): The project site includes limited foliage, including seven trees. A tree survey prepared for the project evaluated these trees (four fruit trees, one Elder Maple, one Fraser Fir, and one Noble Fir), determining them to be generally of fair to poor quality and not significant. None of the trees are considered "protected" under the City of Campbell Tree Protection Ordinance (CMC Ch. 21.32). The project will, therefore, not conflict with any local policies or ordinances protecting biological resources, resulting in no environmental impact.

(f): No adopted Habitat Conservation Plan, Natural Community Conservation Plan or approved local, regional or state habitat conservation plans apply to the project or the project site.

5. CULTURAL RESOURCES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): To determine the potential historic significance of existing on-site structures, and in compliance with CEQA Guideline Sec. 15064.5, a Historic Resource Evaluation (HRE) for the property was prepared. The HRE evaluated existing on-site structures—including a single-family residence and three agricultural-era shed buildings—pursuant to listing criteria for the California Register of Historical Resources (CRHR) and the City of Campbell Historic Resource Inventory (HRI). Broadly speaking, a site or structure may qualify for listing on the CRHR or HRI if it possesses both historic significance and historic integrity. Based upon an inspection of the property and review of public and archival records, the HRE concluded that the property does not exhibit the level of significance necessary to warrant listing on the CRHR or Campbell HRI. As a result, existing on-site structures are not considered historical resources and their demolition would not be significant.

(b to c): The Phase I Environmental Site Assessment prepared for the project identified the historic of use of the property as agricultural production. Previous known uses would be associated with indigenous populations with no recorded records. As a result, no archaeological or other cultural resources are known to exist on the project site. However, should such resources exist, their disturbance would be a potentially significant impact. Incorporation of **Mitigation Measure CUL – 1** is necessary to ensure that in such event, treatment of archaeological or other cultural resources would be conducted in an appropriate manner as to preserve their integrity, resulting in a less than significant impact.

Mitigation Measure CUL – 1

1.1. If archaeological or paleontological resources are encountered during excavation or construction, construction personnel shall be instructed to immediately suspend all activity in the immediate vicinity of the suspected resources and the City and a licensed archeologist or paleontologist shall be contacted to evaluate the situation. A licensed archeologist or paleontologist shall be retained to inspect the discovery and make any necessary recommendations to evaluate the find under current CEQA guidelines prior to the submittal of a resource mitigation plan and monitoring program to the City for review and approval prior to the continuation of any on-site construction activity.

(d): No human remains are known to exist on the project site. Should human remains be discovered during excavation or construction, such remains shall be handled pursuant to § 7050.5 of the California

Health and Safety Code and § 5097.94 of the California Public Resources Code. Specifically, in the event a human burial or skeletal element is identified during excavation or construction, work in that location shall stop immediately until the find can be properly treated. The Santa Clara County Coroner shall be notified and shall make a determination as to whether remains are Native American in origin and take such actions as required by law. As such, no mitigation pertaining to the handling of human remains is required.

6. GEOLOGY AND SOILS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): The project site is located within the seismically active San Francisco Bay Area. According to maps prepared under the Alquist-Priolo Earthquake Fault Zone Act, there are no zoned active faults within the City of Campbell. Therefore, ground rupture is not likely to occur at the site. The nearest major earthquake faults are the Monte Vista Shannon Fault, San Andreas Fault, the Hayward-Rogers Creek Fault and the Calaveras Fault, all of which pose the greatest earthquake threat because of their high quake potential. The project will likely be subjected to at least one moderate to severe earthquake that will cause moderate to severe ground shaking during the useful life of the proposed residential buildings. Because construction practices in the State of California—pursuant to the California Building Code—take into account that earthquakes could potentially damaged buildings, they are designed to withstand moderate ground-shaking, resulting in a less than significant impact. Lastly, according to the State Seismic Hazard Zones Map, the project site is not located in any hazard zone and therefore does not have the potential for liquefaction or earthquake-induced landslides.

(b): The project's preliminary grading, draining, and utility plan (reference Page No. 8), indicates the project would include minimal grading, which would not result in substantial soil erosion or the loss of topsoil.

(c): A Geotechnical Investigation report prepared for this project evaluated the geotechnical conditions of the site. The review included test borings drilled to depths of 25 feet. Subterranean soils at the upper 14 to 17 feet included stiff to hard, silty and sandy clay, followed by very dense gravelly sand. No groundwater was encountered. Based on the results of the boring sampling, the report includes recommendations for site preparation and grading. With incorporation of *Mitigation Measure GEO – I*, requiring compliance with all measures identified by the geotechnical report, the project would not be located soil that is unstable, or that would become unstable as a result of the project.

Mitigation Measure GEO – 1

1.1. *The applicant shall comply with the recommendations in the Geotechnical Investigation, dated September 14, 2013 by Berlogar, Stevens, and Associates. Such recommendations shall be incorporated into the project's final engineering design to minimize the damage from seismic shaking, unsuitable fill, and other geological deficiencies. The project shall use standard engineering techniques and conform to the requirements of the International Building Code to reduce the potential for seismic damage and risk to future occupants.*

(e): The project would not involve the use of septic tanks or alternative waste water disposal systems.

(f): As discussed in Section 5 (Cultural Resources), no unique paleontological resources or unique geological features are known to exist on the project site. However, should such resources exist, their disturbance would be a potentially significant impact. Incorporation of ***Mitigation Measure CUL – 1*** will ensure that in such event, treatment of paleontological resources or unique geological features would be conducted in an appropriate manner as to preserve their integrity.

7. GREENHOUSE GAS EMISSIONS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): Gases that trap heat in the atmosphere are referred to as green house gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like an actual greenhouse does. California State law defines greenhouse gases as including, but not limited, to Carbon Dioxide Hydrofluorocarbons, Methane Perfluorocarbons, Nitrous Oxide, and Sulfur Hexafluoride. The accumulation of GHGs is the principal cause of global climate change. Although definitions of climate change vary between and across regulatory authorities and the scientific community, climate change is the observed phenomena of the alteration of the earth's climate through natural fluctuations and anthropogenic activities that have altered the composition of the global atmosphere.

GHGs are reviewed under the California Environmental Quality Act (CEQA) in compliance with statutory provision of the Global Warming Solutions Act of 2006. The City of Campbell's overall approach to calculating GHG is based on the technical advisory of the Governor's Office of Planning and Research (OPR), *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review* and CEQA thresholds of significance (Guidelines) adopted by the Bay Area Air Quality Management District (BAAQMD). The Guidelines provide that a development project, other than a stationary source, would have a significant cumulative impact of GHGs unless:

- The project can be shown to be in compliance with a qualified Climate Action Plan; or
- Project emissions of CO₂ equivalent GHGs (CO₂e) are less than 1,100 metric tons per year; or
- Project emissions of CO₂ equivalent GHGs are less than 4.6 metric tons per year per service population (residents plus employees).

For single-family residential development, the Guidelines establish a threshold of significance of 56 residential units. Since the project would result in the eventual construction of only nine single-family residences, it would not exceed the threshold, and therefore not result in a measurable increase of GHG emissions. Consequently, what incremental increases in GHG emissions may result from project-related vehicular traffic and energy use attributable to the new residents would not result in a significant environmental effect.

(b): The City of Campbell has not adopted a Climate Action Plan or any comparable policy or regulation pertaining to the reduction or monitoring of greenhouse gases.

8. HAZARDS AND HAZARDOUS MATERIALS

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)		Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)		Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)		Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)		Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)		For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)		For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g)		Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h)		Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): No routine transport, use or disposal of hazardous materials would be associated with the project. A slight hazardous potential would exist during project construction when materials and construction equipment are at the site, however, long-term hazard risk is very low. Hazard risks during construction and demolition would be regulated by the City's standard conditions of approval and would be required to be performed in accordance with state and federal hazardous materials regulations and current Best Management Practices (BMPs) for construction activities. The use of toxic chemicals for landscaping (pesticides, herbicides, etc.) will not be above what is generally required for landscape maintenance and is not considered significant.

(b): The Phase I Environmental Site Assessment prepared for this project identified a 'recognized environmental condition'—meeting the standard set forth by American Society for Testing and Materials (ASTM)—of potential pesticide and/or herbicide soil contamination stemming from the site's history of agricultural use. The assessment further identified three 'business environmental risks': potential for vapor intrusion into new structures in the vicinity of former gasoline and diesel underground storage tanks (UST); pesticide, lead paint, and/or fuel contamination underneath or near the location of existing storage sheds; and potential for lead paint contamination related to the existing single-family residence.

As these items can be considered potentially "significant effect" under CEQA (Guideline § 21068), a Phase II Environmental Site Assessment was prepared. The scope of work included soil sampling for pesticide analysis as well as installation of vapor wells near the locations of former underground storage tanks (USTs) for testing of petroleum compounds. Samples were taken from 24 locations—

including 20 hand auger borings and 4 soil vapor sampling points—including within open land area, beneath the existing sheds, and around the former UST locations. The soil and vapor samples were sent to two State-certified laboratories for testing. Testing results indicated detectable amounts of residual pesticides, including DDT, DDE, and DDD, as well as total petroleum hydrocarbons (diesel and petroleum). These compounds are attributable to the project site's use as farm/orchard land, which included agricultural cultivation (use of pesticides) and use of farm vehicles (use of fuels).

Levels of identified compounds were reviewed pursuant to the San Francisco Bay Area Regional Water Quality Control Board (RWQCB), Risk-based Screening Environmental Screening Levels (ESL). As all compounds tested at levels below the established safety ESL for residential use, the Phase II report concluded that no not mitigation or further subsurface environment work was warranted. As a result, presence of these compounds does not represent a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

In regard to the potential for lead paint contamination related to the existing single-family residence, the Phase II report recommends that prior to demolition a qualified contractors assess the presence of the lead and asbestos in order to property manage and dispose of such materials. With incorporation of ***Mitigation Measure HAZ – 1***, the project would not create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Mitigation Measure HAZ – 1

1.1. Prior to issuance of a demolition permit, a qualified contractor shall asses the property for presence of Lead-based paint (LBP) and Asbestos containing building materials (ACBM), and if present, prepare a plan, to the satisfaction of the Building Official, to properly manage and dispose of such materials.

(c): The project site is within ½ mile of the Westmont High School campus, located northwest of the project site. However, the operation of the project will not include hazardous emission or handling of hazardous or acutely hazardous materials, substances. Further, as discussed in Section 3 (Air Quality), construction and demolition related air pollutants that may constitute a hazard are regulated through Best Management Practices as required by City ordinances and reiterated through ***Mitigation Measure AIR – 1***.

(d): The project site is not listed on the Hazardous Waste and Substances Sites List (available at http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm) compiled pursuant to Government Code Section 65962.5, therefore it would not create a significant hazard to the public or the environment.

(e to f): The project site is not located within the Santa Clara County Airport Land Use Commission jurisdiction, within two miles of a public airport or within the vicinity of a private airstrip.

(g): The project would not interfere with emergency response or evacuation plans. Sufficient emergency access and emergency services staff would be provided for the project site in compliance with the State of California Building Code Standards and requirements of the Santa Clara County Fire Department.

(h): The project site is not located near any wildland areas and would not increase a wildland fire hazard.

9. HYDROLOGY AND WATER QUALITY

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)		Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)		Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)		Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)		Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)		Create significant increases in erosion of the project site or surrounding areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)		Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g)		Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h)		Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i)		Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j)		Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(k)		Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(l)		Potentially impact stormwater runoff from construction activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(m)		Potentially impact stormwater runoff from post-construction activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(n)		Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(o)		Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(p)		Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): The project will be adequately served by the existing water supplies, as confirmed in written correspondence (“will serve” letter) by San Jose Water Company, the local area water utility. As such, the project will not deplete or otherwise interfere with groundwater supplies.

(b to e): The project would entirely alter the existing drainage pattern of the project site through demolition of all structures and re-grading to accommodate residential development. As discussed below, the project includes advanced stormwater treatment and retention that will prevent erosion, siltation, runoff related flooding, or increases in flow velocity or volume of stormwater runoff. The

changes to the project site as a result of on-site improvements will not substantially alter the existing drainage pattern of the surrounding area, alter the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site.

(f to g): In compliance with Provision C.3 of the National Pollution Discharge Elimination System (NPDES), the project incorporates stormwater management measures. The project's stormwater treatment plan (reference Page 9) indicates use of bio-retention areas (vegetated swales) that allow water to percolate into the ground through a passive (natural) infiltration medium before flowing to a central storm drain within the street. The bio-retention areas would be located alongside the street curb, within 10-foot front yard 'private storm drain easements'. As required by **Mitigation Measure AES – 1**, the landscaping of the retention areas will be restricted, thereby ensuring their continued effectiveness. Moreover, although located on private property, the bio-retention areas would be maintained and managed by the City. To fund this additional maintenance, the City intends to establish a special assessment district for the affected properties. The proposed treatment system will treat and contain stormwater on-site and therefore not exceed the capacity of existing or planned storm water drainage systems, provide substantial additional sources of polluted stormwater runoff, or otherwise substantially degrade water quality.

(h to i): According to the Federal Emergency Management Agency Flood Insurance Rate Maps, the majority of the project site is located in Zone X, an area determined to be outside the 500-year annual chance floodplain. A portion of the site, adjacent to Smith Creek is located with Zone A, an area within the 100-year annual chance floodplain. However, due to conformance the applicable building setbacks of the San Tomas Neighborhood Plan (25-foot rear setback) and the City's Flood Damage Prevention Ordinance (CMC Ch. 21.22), the project would not place housing or other structures within a 100-year flood hazard area.

(j to k): The project site is located downstream of Lexington Reservoir, in an area defined by the Association of Bay Area Governments as a dam failure inundation area. As the project is not modifying flood protection measures or creating a condition where adjacent properties are exposed to a new significant risk of loss, injury or death involving flooding, no additional exposure to water-related hazards is expected as a result of the project construction or operation.

(l): As discussed in Section 3 (Air Quality), construction and demolition activities are regulated through Best Management Practices as required by City ordinances and reiterated by **Mitigation Measure AIR – 1**, which is designated limit air and water contamination related to construction activity. With the implementation of this measure, potential short-term air and water quality impacts associated with construction would be reduced to a less than significant level.

(m to p): The daily activities associated with single-family residential dwellings do not generally discharge of pollutants or contaminants to an extent that would impact stormwater quality or receiving waters. Therefore, the project would not result in an environmental impact.

10. LAND USE and PLANNING

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): Projects that have the potential to physically divide an established community typically include construction that would eliminate formal or informal travel ways through a property. No such pathways or other forms of informal access through the project site currently exist. Instead, the project would include construction of a new public pathway providing new pedestrian access between Hacienda and Westmont Avenues, facilitating greater neighborhood integration. Therefore, the project would not physically divide an established community.

(b): The Campbell General Plan Land Use Element Diagram and Campbell Zoning Map designate the project site as *Low Density Residential (less than 4.5 units/gr. acre)* and R-1-9 (Single –Family Residential – 9,000 sq. ft. min lot size), respectively. The proposed subdivision would result in the creation of nine conforming single-family residential parcels at an approximant density 3.3 units per gross acre. As such, the proposed subdivision would not conflict with the City of Campbell General Plan or Zoning Ordinance or any other applicable land use plan or regulation. In this regard, the application would additional further the following General Plan Land Use Policies by maintaining the existing neighborhood character:

Strategy LUT-5.2a: Neighborhood Compatibility: Promote new residential development and substantial additions that are designed to maintain and support the existing character and development pattern of the surrounding neighborhood, especially in historic neighborhoods and neighborhoods with consistent design characteristics

Strategy LUT-5.2e: Reduction of Development Intensity: Development intensity may be reduced below the minimum on the land use diagram to ensure the compatibility of development with its surroundings or due to site constraints such as lot size or natural features.

Strategy LUT-17.2a: Lot Sizes: Ensure that new development and renovation provides low-density residential development and encourage larger than minimum lot sizes.

(c): No habitat conservation plan or natural community conservation plans are applicable to the project site.

11. MINERAL RESOURCES

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)		Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)		Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to b): No known mineral resources are present at the project site.

12. NOISE

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a to b): The City's Noise Ordinance (CMC Sec. 21.16.070.E) provides the following noise exposure standards for new residential development:

- Noise from stationary sources. New residential development shall conform to a stationary source noise exposure standard of 65 dBA for exterior noise levels and 45 dBA for interior noise levels.
- Traffic-related noise. New residential development shall conform to a traffic-related noise exposure standard of 60 dBA CNEL for outdoor noise in noise-sensitive outdoor activity areas and 45 dBA CNEL for indoor noise.

Acoustical studies are required for all new noise-sensitive projects that may be affected by existing noise from stationary sources, including all new residential developments with a noise exposure greater than 60 dBA CNEL. Since no sources of stationary noise are known to exist within vicinity of the project site and the General Plan (reference Pg. CNR-9 – Figure CNR-2) does not identify any streets within the vicinity has having noise-related conditions in excess of 60 dBA CNEL, the project will not result in noise exposure in excess of local standards.

(c): Single-Family residences are classified as sensitive receptors of noise, and to this extent do not themselves generate noise of any appreciable level. As such, the project would not result in increase in ambient noise within the vicinity of the project site.

(d): Construction of the project will temporarily increase ambient noise levels in the project vicinity. Project construction includes the operation of construction equipment, excavation and other development activities. The implementation of the following mitigation measure would reduce potential noise impacts during project construction to a less than significant level:

Mitigation Measure NOISE – 1

- 1.1. *Construction activities shall be limited to weekdays between 8:00 a.m. and 5:00 p.m. and Saturdays between 9:00 a.m. and 4:00 p.m. No construction shall take place on Sundays or holidays unless an exception is granted by the Building Official.*
- 1.2. *Truck routes to and from the construction site shall be established to avoid access to the project site via residential streets where possible.*
- 1.3. *All construction equipment with internal combustion engines used on the project site shall be properly muffled and maintained in good working condition.*
- 1.4. *Unnecessary idling of internal combustion engines shall be strictly prohibited.*
- 1.5. *All stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be located as far as possible from noise-sensitive receptors such as existing residences and businesses.*
- 1.6. *Prior to the issuance of building permits, the project site shall be posted with the name and contact number of the lead contractor in a location visible from the public street so that the contractor can be made aware of noise complaints.*

(e and f): The project is not located within the vicinity of an airport land use plan or within two miles of an airport. The project is not located within the vicinity of a private airstrip.

13. POPULATION AND HOUSING

<i>Would the project:</i>		Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): The project will eventually result in the construction of nine single-family residential units on a property identified by the Campbell General Plan Housing Element as being suitable and appropriate for housing. The introduction of nine single-family residences in a predominantly developed residential neighborhood represents only a nominal increase of population growth. Similarly, although the proposed public roadway would allow access to the adjacent property, indirect population growth would be nominal and not be a significant environmental impact.

(b and c): The project will require the demolition of the existing residence that has been vacated, and therefore will not result in the displacement of any people or housing units, which would necessitate the construction of replacement housing elsewhere.

14. PUBLIC SERVICES

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	i) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): The project will require public services such as fire, police services, schools, open space, and street maintenance, commensurate with the scale of the project. The County Fire District, Campbell Police Department, City stakeholder agencies, and area school districts reviewed the project. As this project will result in a only a nominal increase in population, a less than significant impact to existing services was determined by the reviewing agencies. Existing parkland is sufficient to serve the residents of the project, as discussed in Section 15 (Recreation).

15. RECREATION

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a): Residents of the project are likely to access Jack Fisher Park located one third-mile of the project site. Due to the limited scope and scale of the project, only a nominal increase in the use of City and regional parks and other recreational facilities can be expected as a result of the project, which would not result in a significant impact.

(b): The project does not any include recreational facilities.

16. TRANSPORTATION and TRAFFIC

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d)	Substantially increase hazards due to a design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

(a and b): A trip generation analysis based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, prepared by the City Traffic Engineer anticipates that the project would result in an average of 86 daily trips, including 5 AM peak hour (7:00 – 9:00) trips and 9 PM peak hour (4:00 – 6:00) trips. This nominal increase in trips would not result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, congestion at area intersections, or any other significant impact.

Net Project Trips									
Land Use	Qty	Units	AM Peak			PM Peak			ADT
			Total	Inbound	Outbound	Total	Inbound	Outbound	
SF Housing	9	DU	7	2	5	9	6	3	86

(c): The project will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

(d): The proposed public roadway is designed consistent with public roadway standards for residential streets as determined by the City Engineer and would not result in hazards due to a design features or incompatible uses.

(e): The project has been designed to comply with emergency access requirements of the Santa Clara Fire Department. The project plans include an emergency vehicle access plan that illustrates compliance with said standards. The County Fire Department has reviewed the project during the City’s department review committee process and will again review the access routes during review of construction drawings.

(f): Anticipated single-family development will be subject to the City’s parking standard of two spaces per unit, which will result in adequate parking capacity.

(g): The project site is not in vicinity of any light-rail or comparable bus rapid transit (BRT) line, and as a result is not subject to City policies encouraging alternative transporting solutions (e.g., provision of transit-passes, incorporation of bicycle parking, etc.). Additionally, the City’s adopted requirements for alternative transportation solutions per CMC Sec. 21.28.070 require provision bicycle and clean-air vehicle parking only for non-residential development subject to the Green Building Standards Code (CALGreen). The project, therefore, will not conflict with adopted policies, plans, or programs supporting alternative transportation.

17. UTILITIES and SERVICE SYSTEMS

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>					
(a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f)	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g)	Comply with federal, state, and local statutes and regulations related to solid wastes.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a to b): The utilities for the proposed project, including sewage disposal, would require the construction of a publicly maintained on-site sewer system and off-site sewer improvements. The project would not generate significant amounts of wastewater, and would therefore not exceed wastewater treatment requirements for the Regional Water Quality Control Board. The West Valley Sanitation District has provided written correspondence ("will serve" letter) which indicates that the sewer facilities, with the construction of on- and off-site improvements, are adequate to support the site.

(c): The stormwater runoff generated by the project site would be collected and treated on-site in compliance with Provision C.3 of the National Pollution Discharge Elimination System (NPDES) requirements as discussed in Section 9 (Hydrology and Water Quality) and will not require expansion or construction of new stormwater treatment facilities. Therefore, the proposed drainage facility for the project site would not cause any significant environmental effects.

(d): The project will be adequately served by the existing water supplies, as confirmed in written correspondence ("will serve" letter) by San Jose Water Company, the local area water utility.

(e): The project would connect to the existing waste water treatment system, which currently has sufficient capacity to receive the additional waste water generated from the proposed project. Therefore, the project would not impact the ability of the waste water treatment provider to meet its current commitments for service.

(f to g): Existing capacity at local landfills can accommodate the amount of waste generated as a result of project operation. The project would comply with Federal, State and local statutes and regulations related to solid waste.

18. MANDATORY FINDINGS OF SIGNIFICANCE

Issues		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(a): Based on the findings of the Initial Study, construction and operation of the project, with mitigation, would not substantially degrade the quality the environment; reduce the habitat, population, or range of species; nor eliminate important examples of California history or prehistory.

(b): Based on the findings of this Initial Study, the project would not have individual or cumulative environmental impacts that cannot be mitigated to a less than significant level.

(c): Based on the findings of the Initial Study, there is no evidence to demonstrate that the project would cause a substantial adverse effect on human beings, either directly or indirectly.

III. RECOMMENDATION and DETERMINATION

On the basis of this initial evaluation, and incorporation of the recommended mitigation measures into the project design:

1.	I find that the project could not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
2.	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	<input checked="" type="checkbox"/>
3.	I find the proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	<input type="checkbox"/>
4.	I find that the proposed project may have a “potentially significant impact” or “potentially significant unless mitigated impact” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	<input type="checkbox"/>
5.	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	<input type="checkbox"/>

Daniel Fama
PROJECT PLANNER

Associate Planner
TITLE

City of Campbell
AGENCY


SIGNATURE

March 5, 2013
DATE

IV. REFERENCE MATERIALS

Exhibits (May be viewed at <http://www.cityofcampbell.com/General/PublicNotices.htm>):

1. Geotechnical Investigation by Berlogar, Stevens, and Associates, dated September 14, 2012.
2. Phase I Environmental Site Assessment by Consulting Engineers Corp., dated July 31, 2012.
3. Phase II Environmental Site Assessment by Berlogar, Stevens, and Associates, dated February 27, 2013
4. Preconstruction Western Burrowing Owl Survey by Monk & Associates Environmental Consultants, dated October 10, 2012.
5. Historic Resource Evaluation by Garavaglia Architecture, Inc., dated February 25, 2013.
6. Evaluation of Existing Tree's Report by Circarta Advisors, dated November 17, 2013

Reference Documents:

1. Bay Area Air Quality Management District (BAAQMD), June 2010, *CEQA Air Quality Guidelines*.
2. Bay Area Air Quality Management District (BAAQMD), December 2008, *Source Inventory of Bay Area Greenhouse Gas Emissions*.
3. California Environmental Protection Agency (CEPA) California Air Resources Board (CARB), April 2005, *Air Quality and Land Use Handbook: A Community Health Perspective*.
4. California Environmental Protection Agency (CEPA) California Air Resources Board (CARB), November 16, 2007, *Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*.
5. California Natural Diversity Database, 2000.
6. California Office of Planning and Research (OPR), June 19, 2008, *Technical Advisory: CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*.
7. CEQA Guidelines, 2012 version.
8. City of Campbell General Plan.
9. City of Campbell Zoning Code.
10. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Community Map Number 06085C0241H, Effective Date May 18, 2009.
11. State of California, Seismic Hazard Zones Map, San Jose West Quadrangle, February 7, 2002.
12. U.S. Environmental Protection Agency, April 15, 2009, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007*.

EXHIBIT 1

GEOTECHNICAL INVESTIGATION

GEOTECHNICAL INVESTIGATION
ABBOTT RESIDENTIAL PROJECT
1161 ABBOT AVENUE
CAMPBELL, CALIFORNIA

FOR
DUC DEVELOPMENT
September 14, 2012

Job No. 3450.100

Via E-mail and Mail

September 14, 2012
Job No. 3450.100

**BERLOGAR
STEVENS &
ASSOCIATES**

Mr. Al Barnett
Duc Development
890 Saratoga Avenue, Suite 201
San Jose, California 95129

Subject: Geotechnical Investigation
Abbott Residential Project
1161 Abbot Avenue
Campbell, California

Dear Mr. Barnett:

INTRODUCTION

Berlogar Stevens & Associates (BSA) has completed a geotechnical investigation for a proposed 8-lot, single family, residential subdivision. The site is located between the northern and southern terminus of Abbott Avenue as shown on Plate 1, Vicinity Map, and Plate 2, Site Plan. The approximately 2.7 acre site is relatively flat, hence, minor grading is anticipated for development. A residence with a paved driveway and several storage structures located in the southern portion of the site will be demolished. Historical Google imagery indicates the site used to have an orchard in the 1990's, and possibly used for row crop agriculture starting about 2000.

PURPOSE AND SCOPE OF SERVICES

The purpose of this investigation was to provide geotechnical recommendations for the design and construction of the subject subdivision. The scope of our services included field exploration, laboratory testing, engineering analyses based on field and laboratory data, and preparation of this report. Our services were performed in general conformance with our proposal dated August 23, 2012.

FIELD EXPLORATION AND LABORATORY TESTING

Our field exploration was performed on August 28, 2012, and consisted of drilling four borings (Borings B-1 through B-4) at the approximate locations shown on the Plate 2, Site Plan. The borings were drilled with a truck mounted drill rig using solid flight augers up to a depth of approximately 25 feet below the existing ground surface. Materials encountered in each boring were visually classified in the field and a log was recorded. The boring logs showing soil classification and blow counts are presented on Plates 4 through 11. A Key to the Boring Log Symbols is included on Plate 12. The boreholes were backfilled with grout after completion of drilling and sampling.

Laboratory testing consisting of Atterberg limits, sieves with hydrometers and single point consolidation tests were performed, and the results are shown on the boring logs. The results of the sieve analyses are also contained on Plate 13, and the Atterberg Limits tests are shown on Plate 14. In addition, a soil sample (combined from borings B-2 and B-4 at 1.5 feet) was delivered to CERCO Analytical, Inc. in Concord, California for corrosivity testing. The results of the corrosivity tests and a brief evaluation by CERCO are contained in Appendix A.

SITE CONDITIONS

SURFACE CONDITIONS

The site is relatively flat at an approximate elevation of 235 feet MSL. Most of the site appears to have been used for row crop agriculture, and was recently disked. A residence is located in the southern portion of the site, with some storage structures located along the western property boundary. The ground surface is covered with fine gravel between the residence and the storage structures. Medium sized trees and bushes are located around the residence and in the southeast corner of the site.

SUBSURFACE CONDITIONS

The upper 14 to 17 feet is a series of lenses and layers of gray brown to light gray brown, very stiff to hard, moist, silty clay and sandy clay. Very dense gravelly sand was encountered below the upper clayey soils to the bottom of the borings to about 25 feet deep. Groundwater was not encountered in the borings performed for this investigation. For a more detailed description of the subsurface conditions encountered, please see the attached boring logs. The upper clayey soils were found to have Plasticity Indices of 14 and 22 and Liquid Limits of 28 and 41, respectively. The fines content varied between about 55 to 95 percent. Laboratory test results are attached as Plates 13 and 14.

RECOMMENDATIONS

SITE PREPARATION AND GRADING

Our general site preparation and grading recommendations are as follows:

1. The areas to be graded should be cleared of debris, surface vegetation, tree roots, abandoned utilities and buried structures. We suspect that an old septic tank and leach field system could be present at the site based on past land use history as a farm.
2. Trees designated for removal should include the entire root ball and roots larger than ½ inch in diameter. Holes resulting from tree removal should be cleared of loose soil and roots, and properly backfilled in accordance with our recommendations.
3. If zones of soft or saturated soils are encountered during excavation and compaction, deeper excavations may be required to expose firm soils. This should be determined in the field by the soils engineer.

4. Following the stripping and clearing operations, the exposed subgrade should be scarified to a depth of about 12 inches, moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction.
5. Relative compaction refers to the in-place dry density of the soil expressed as a percentage of the maximum dry density determined by ASTM D1557 compaction test procedure. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density.
6. The on-site soils are generally suitable for engineered fill, provided they are free of debris, significant vegetation, rocks greater than 4 inches in largest dimension and other deleterious matter.
7. Import fill should contain no deleterious matter and rocks greater than 4 inches in largest dimension, and have Plasticity Index (PI) less than 15. Fill materials should be subject to evaluation by this office prior to their use. We suggest that the import fill be cleared of toxic or hazardous materials prior to importing.
8. Fill and backfill should be placed in thin lifts (normally 6 to 8 inches in loose lift thickness depending on the compaction equipment); properly moisture conditioned, and compacted as specified above.
9. Observations and soil density tests should be carried out during grading and backfill operations to assist the contractor in obtaining the required degree of compaction and proper moisture content. Where the compaction is outside the range required, additional compaction effort and adjustment of moisture content should be made until the specified compaction and moisture conditioning is achieved.
10. The soils engineer should be notified at least 48 hours prior to any grading and backfill operations. The procedure and methods of grading may then be discussed between the contractor and the soils engineer.

BUILDING FOUNDATIONS

It is our opinion from a geotechnical engineering standpoint that the proposed residences can generally be supported on post-tensioned (PT) slab foundations constructed on properly prepared subgrade soils. The upper 12 inches of subgrade soils should be pre-soaked to at least 5 percent above optimum moisture content prior to concrete placement. The pre-soaked pads should not be allowed to dry out to less than the recommended moisture content before concrete is placed. Subgrade moisture should be checked by a BSA representative prior to concrete placement. We recommend the following criteria be incorporated in the design of post-tension slab foundations, utilizing the third edition of the Post-Tensioning Institute (PTI) design manual:

Allowable Bearing Capacity (may be increased by 1/3 for seismic and/or wind loads to be used at the discretion of the structural engineer)	1,200 psf
Passive Equivalent Fluid Pressure	Not applicable due to shallow PT slabs
Base Friction Coefficient	0.30

Edge Moisture Variation Distance	
Center Lift	9.0 feet
Edge Lift	4.6 feet
Differential Swell	
Center Lift	0.85 inches
Edge Lift	1.25 inches

Building concrete slabs-on-grade can, from a geotechnical engineering standpoint, be placed on the prepared subgrade. During foundation installation, utility trench excavation and backfilling, previously compacted subgrade soils may become disturbed. Before placement of concrete slabs, the disturbed subgrade soils should be properly moisture conditioned and compacted.

Where moisture vapor through the slabs would be objectionable, the use of a vapor retarder and capillary moisture break should be considered by the slab designer. The slab designer should determine the thickness of the slab, rock cushion and sand cushion.

CBC SEISMIC DESIGN PARAMETERS

The subject site is located at approximately 37.2705 degrees north latitude and 121.9762 degrees west longitude. The peak ground acceleration (PGA) with a 10% chance of exceedance in 50 years (475 year return period) is 0.52g according to the United States Geologic Survey (USGS) Deaggregation website (assumed shear wave velocity of 270 m/s). According to the USGS Earthquake Ground Motion Parameters program, Version 5.1.0 dated February 10, 2011, the following 2010 California Building Code seismic design criteria should be incorporated into the structural design of the proposed residence.

Site Class	D
Mapped Spectral Acceleration for Short Periods, S_s , for Site Class B with 5% damping	2.15 g
Mapped Spectral Acceleration for 1-second Period, S_1 , for Site Class B with 5% damping	0.75 g
SM_s for Site Class D	2.15 g
SM_1 for Site Class D	1.12 g
SD_s for Site Class D	1.44 g
SD_1 for Site Class D	0.75 g

UTILITY TRENCH EXCAVATION AND BACKFILL

Excavations should conform to applicable State and Federal industrial safety requirements. In general, trench sidewalls should be sloped no steeper than 2H:1V in dry granular soils and 1H:1V in hard, cohesive soil. Flatter trench slopes may be required if seepage is encountered during construction or if exposed soil conditions differ from those encountered in the field explorations. If trench side slopes cannot be excavated due to site constraints, shoring should be provided to ensure trench stability and safety. We can provide soil parameters for shoring design upon request.

Materials quality, placement procedures and compaction operations for utility bedding and shading materials should meet agency requirements. Utility trench backfill above the shading materials may consist of native soils, processed to remove rubble, rock fragments over 4 inches in largest dimension, rubbish, vegetation and other undesirable substances. Backfill materials should be placed

in level lifts about 6 to 8 inches in loose thickness, moisture conditioned and mechanically compacted according to the requirements contained in the "*Site Preparation and Grading*" section. No jetting is permissible on this project.

PAVEMENT SECTIONS

We are assuming an R-value of 5 for this project due to the potential variability in the subgrade soils at the site. We recommend a pavement section of 3 inches AC over 10 inches of Class 2 AB for the residential street.

Prior to subgrade preparation, utility trench backfill in the pavement areas should be properly placed and compacted as previously recommended. The top 12 inches of soils for pavement subgrade should be scarified and compacted to at least 95 percent relative compaction to provide a smooth, unyielding surface. Subgrade soils should be maintained in a moist and compacted condition until covered with the complete pavement section.

Class 2 aggregate base should conform to the requirements in Section 26, Caltrans "Standard Specifications," (May, 2006). The aggregate base should be placed in thin lifts in a manner to prevent segregation, uniformly moisture conditioned, and compacted to at least 95 percent relative compaction to provide a smooth, unyielding surface. Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same soil, as determined by the ASTM D1557 compaction test method.

A pavement edge drain should be constructed under the curb and gutter as shown on Plate 3, Pavement Edge Drain. This drain will drain water that may collect and saturate the AB, which could cause premature pavement failure.

ADDITIONAL SOIL ENGINEERING SERVICES

Prior to construction, our firm should be provided the opportunity to review the plans and specifications to determine if the recommendations of this report have been implemented in those documents. We would appreciate the opportunity to meet with the contractors prior to the start of site grading, underground utility installation and pavement construction to discuss the procedures and methods of construction. This can facilitate the performance of the construction operation and minimize possible misunderstanding and construction delays.

To a degree, the performance of the proposed project is dependent on the procedures and quality of the construction. Therefore, we should provide observations of the contractor's procedures and the exposed soil conditions, and field and laboratory testing during site preparation and grading, placement and compaction of fill, underground utility installation, and foundation and pavement construction. These observations will allow us to check the contractor's work for conformance with the intent of our recommendations and to observe any unanticipated soil conditions that could require modification of our recommendations.

LIMITATIONS

The conclusions and recommendations of this report are based upon the information provided to us regarding the proposed project, subsurface conditions encountered at the boring locations, the results of the laboratory testing, and professional judgment. This study has been conducted in accordance with current professional geotechnical engineering standards; no other warranty is expressed or implied.

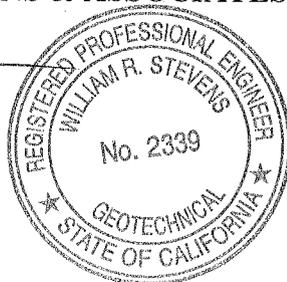
Site conditions described in this report are those existing at the time of our field exploration in summer 2012, and are not necessarily representative of such conditions at other locations or times. The locations of the field explorations were estimated by pacing from existing structures at the site, and should be considered approximate only.

In the event that changes in nature, design and location of the proposed project are planned, or if it is found during construction that subsurface conditions differ from those described on the boring logs, then the conclusions and recommendations in this report shall be considered invalid, unless the changes are reviewed, and the conclusions and recommendations are modified or approved in writing.

Respectfully submitted,

BERLOGAR STEVENS & ASSOCIATES


William R. Stevens
Principal Engineer
GE 2339




Frank Berlogar

WRS/FB:jmb

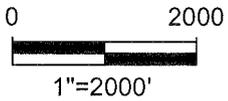
Attachments:

- Plate 1 – Vicinity Map
- Plate 2 – Site Plan
- Plate 3 - Pavement Edge Drain
- Plates 4 through 11 – Boring Logs
- Plate 12 – Key to Boring Log Symbols
- Plate 13 - Sieve/Hydrometer Test Results
- Plate 14 – Atterberg Limits Test Results
- Appendix A - Cerco Soil Corrosivity Test Results

Copies: Addressee (6)

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JOB NUMBER: 3450.100 DATE: 9-6-12 BY: CC



VICINITY MAP
ABBOTT RESIDENTIAL
1161 ABBOTT AVENUE
CAMPBELL, CALIFORNIA
FOR
DUC DEVELOPMENT

BASE: PORTION OF U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, SAN JOSE WEST, CALIFORNIA, AT A SCALE OF 1:24,000.

CHECKED BY:

DRAWN BY: CC

DATE: 9-6-12

JOB NUMBER: 3450.100



SITE PLAN

ABBOTT RESIDENTIAL

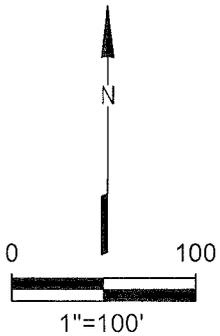
1161 ABBOTT AVENUE
 CAMPBELL, CALIFORNIA
 FOR
 DUC DEVELOPMENT

Berlogar Stevens & Associates

SOIL ENGINEERS * ENGINEERING GEOLOGISTS

EXPLANATION

-  PROJECT BOUNDARY
-  B-4
BORING LOCATION

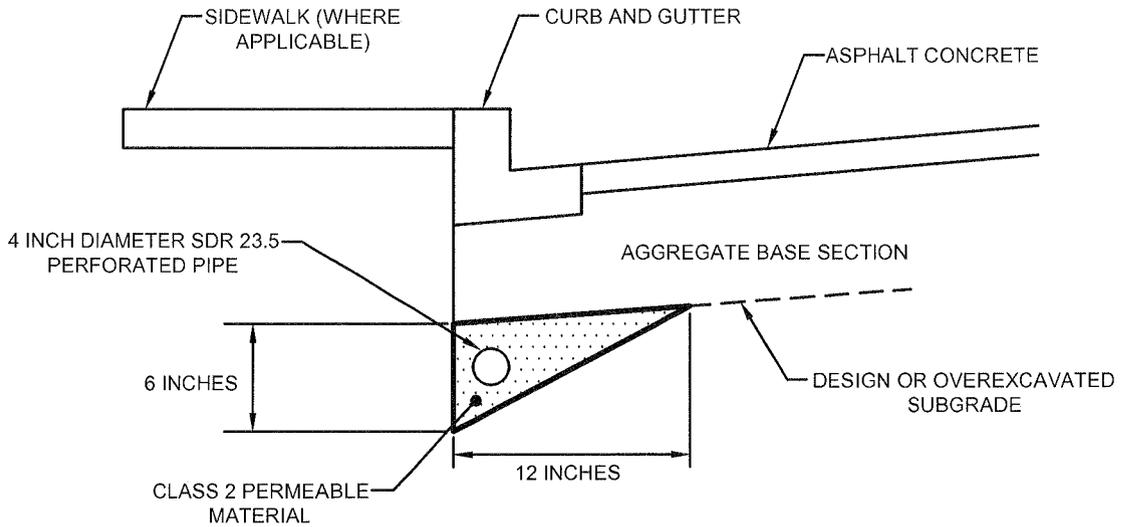


CHECKED BY:

DRAWN BY: CC

DATE: 9-13-12

JOB NUMBER: 3450.100



NOTES:

1. 4 INCH DIAMETER PERFORATED PIPE TO BE SURROUNDED BY AT LEAST 2 INCHES OF CLASS 2 PERMEABLE MATERIAL.
2. 4 INCH DIAMETER PERFORATED PIPE TO DISCHARGE INTO CATCH BASIN/DRAIN INLET.
3. PERFORATED PIPE TO BE LOCATED BELOW EXISTING SHALLOW UNDERGROUND UTILITIES WHERE THEY CROSS.

SCALE N.T.S.

PAVEMENT EDGE DRAIN

BORING LOG B-1

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
2.5-inch I.D. Split Barrel	140	30
Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
			0		CL	SILTY CLAY, gray-brown, dry to moist, very stiff, trace fine-to coarse-grained sand, trace fine gravel, slightly porous
		29			CL	SILTY CLAY, light gray-brown, moist, very stiff, fine-to medium-grained sand, trace fine gravel (99% passing #4, 54% passing #200, 20% passing 2 micron sieve) PI=14 LL=28
		90	5		CL	SILTY CLAY, gray-brown, moist, very stiff, trace fine-to medium-grained sand
					CL	SANDY CLAY, light gray-brown, moist, hard, fine-to coarse-grained sand, trace fine gravel, limonite stains
		43			CL	SILTY CLAY, light gray-brown, moist, very stiff, some fine-grained sand, limonite stains
			10			below 12 feet, gravelly
		83			CL	SANDY CLAY, gray-brown, moist, hard, fine-to coarse-grained sand, some fine-to coarse gravel
			15			
		50/3"			SP	GRAVELLY SAND, gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, some clay
			20			

BORING LOG B-1

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
2.5-inch I.D. Split Barrel	140	30
Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
		96	20		SP	GRAVELLY SAND, gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, some clay
			25			Boring terminated at 25 feet No groundwater encountered

BORING LOG B-2

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
 2.5-inch I.D. Split Barrel	140	30
 Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS	
17.4	109.8		0		CL	SILTY CLAY, gray-brown, dry to moist, very stiff, trace fine-grained sand, trace fine gravel, slightly porous	
		25			CL	SANDY CLAY, light gray-brown, moist, very stiff, fine-to medium-grained sand, some silt, limonite stains	
		40	5		CL	SILTY CLAY, light to medium gray-brown, moist, very stiff, trace fine-to medium-grained sand, minor limonite stains (consolidated -1.1% with 2,000 psf load, swelled 2.4% upon saturation)	
		61			CL	SANDY CLAY, light to medium gray-brown, moist, hard, fine-to medium-grained sand, trace silt, limonite stains	
		10			CL	SILTY CLAY, light gray-brown, moist, hard, some fine-grained sand, limonite stains	
		91					
		15					
		65			SP	GRAVELLY SAND, gray-brown, moist, dense, fine-to coarse-grained sand, fine gravel, some clay	
		20					

BORING LOG B-2

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
2.5-inch I.D. Split Barrel	140	30
Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
		65	20	▲	SP	GRAVELLY SAND, gray-brown, moist, dense, fine-to coarse-grained sand, fine gravel, some clay
		90	-			
			25	▲		Boring terminated at 25 feet No groundwater encountered
			-			
			-			
			-			
			-			
			30			
			-			
			-			
			-			
			35			
			-			
			-			
			-			
			40			

BORING LOG B-3

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
2.5-inch I.D. Split Barrel	140	30
Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
3.0	104.4	16	0		CL	SILTY CLAY, gray-brown, dry to moist, stiff, trace fine-to coarse grained sand, trace fine gravel, slightly porous
			16	█	CL	SANDY CLAY, light gray-light brown, dry to moist, very stiff, fine-to medium-grained sand (consolidated -0.9% with 2,000 psf load, settled to -5.4% upon saturation)
			46	█	CL	SANDY CLAY, gray-brown, moist, hard, fine-to coarse-grained sand, trace to some fine gravel
			5			
			49	█	CL	SILTY CLAY, light to medium gray-brown, moist, hard, trace fine-to medium-grained sand, limonite stains
			10			
			44	█		
			15		CL	SANDY CLAY, light to medium gray-brown, moist, very stiff, trace fine-grained sand, heavy limonite stains
					SC	CLAYEY SAND, light to medium gray-brown, moist, dense, fine-to medium-grained sand
			80/9"		SP	GRAVELLY SAND, gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, some clay, limonite stains
		20				

BORING LOG B-3

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
2.5-inch I.D. Split Barrel	140	30
Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
		87	20		SP	GRAVELLY SAND, gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, some clay, limonite stains
			25			Boring terminated at 25 feet No groundwater encountered
			30			
			35			
			40			

BORING LOG B-4

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
■ 2.5-inch I.D. Split Barrel	140	30
▲ Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
			0		CL	SILTY CLAY, light gray-brown, dry to moist, hard, trace fine-to coarse-grained sand, trace fine-to coarse gravel, trace cobbles, porous
		71	-	■		
			-		CL	SILTY CLAY, medium gray-brown, moist, hard, fine-to medium-grained sand, trace fine gravel
		58	5	■		(100% passing #4, 96% passing #200, 43% passing 2 micron sieve) PI=22 LL=41
			-		CL	SILTY CLAY, light gray-brown, moist, very stiff, trace fine-grained sand, minor limonite stains
		35	10	■		
			-		CL	SANDY CLAY, light gray-brown, moist, hard, fine-to medium-grained sand, trace fine gravel
		50/3"	15	■	SP	GRAVELLY SAND, light gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, trace clay, limonite stains
			-		SP	GRAVELLY SAND in SANDY CLAY matrix, gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, some clay
		92/10"	20	■		

BORING LOG B-4

Job No.: 3450.100	Client: Duc Development	Elevation: N/A
Job Name: Abbott Residential	Drill Method: Solid-flight Auger	Date Drilled: 8-28-12

SAMPLER TYPE:	DRIVE WEIGHT (LBS.)	HEIGHT OF FALL (IN.)
■ 2.5-inch I.D. Split Barrel	140	30
▲ Standard Penetration Test	140	30

Moisture Content (%)	Dry Unit Weight (PCF)	Penetration Resistance (blows/foot)	Depth (feet)	Sample Symbol	USCS Classification	DESCRIPTION AND REMARKS
		92/10"	20	■	SP	GRAVELLY SAND in SANDY CLAY matrix, gray-brown, moist, very dense, fine-to coarse-grained sand, fine-to coarse gravel, some clay
		51		▲	SC	GRAVELLY SAND, gray-brown, moist, hard, fine-to coarse-grained sand, trace fine gravel, heavy limonite stains
			25			Boring terminated at 25 feet No groundwater encountered
			30			
			35			
			40			

UNIFIED SOIL CLASSIFICATION SYSTEM

BY: CC

DATE: 9-5-12

MAJOR DIVISIONS			CLASSIFICATION SYMBOL	TYPICAL NAMES
COARSE GRAINED SOILS	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LITTLE TO NO FINES	GW	WELL GRADED GRAVELS, GRAVEL/SAND MIXTURES
			GP	POORLY GRADED GRAVELS, GRAVEL/SAND MIXTURES
		GRAVEL WITH OVER 12% FINES	GM	SILTY GRAVELS, POORLY GRADED GRAVEL/SAND/SILT MIXTURES
			GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL/SAND/CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE TO NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS
			SP	POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, POORLY GRADED SAND/SILT MIXTURES
			SC	CLAYEY SANDS, POORLY GRADED SAND/CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SILTS

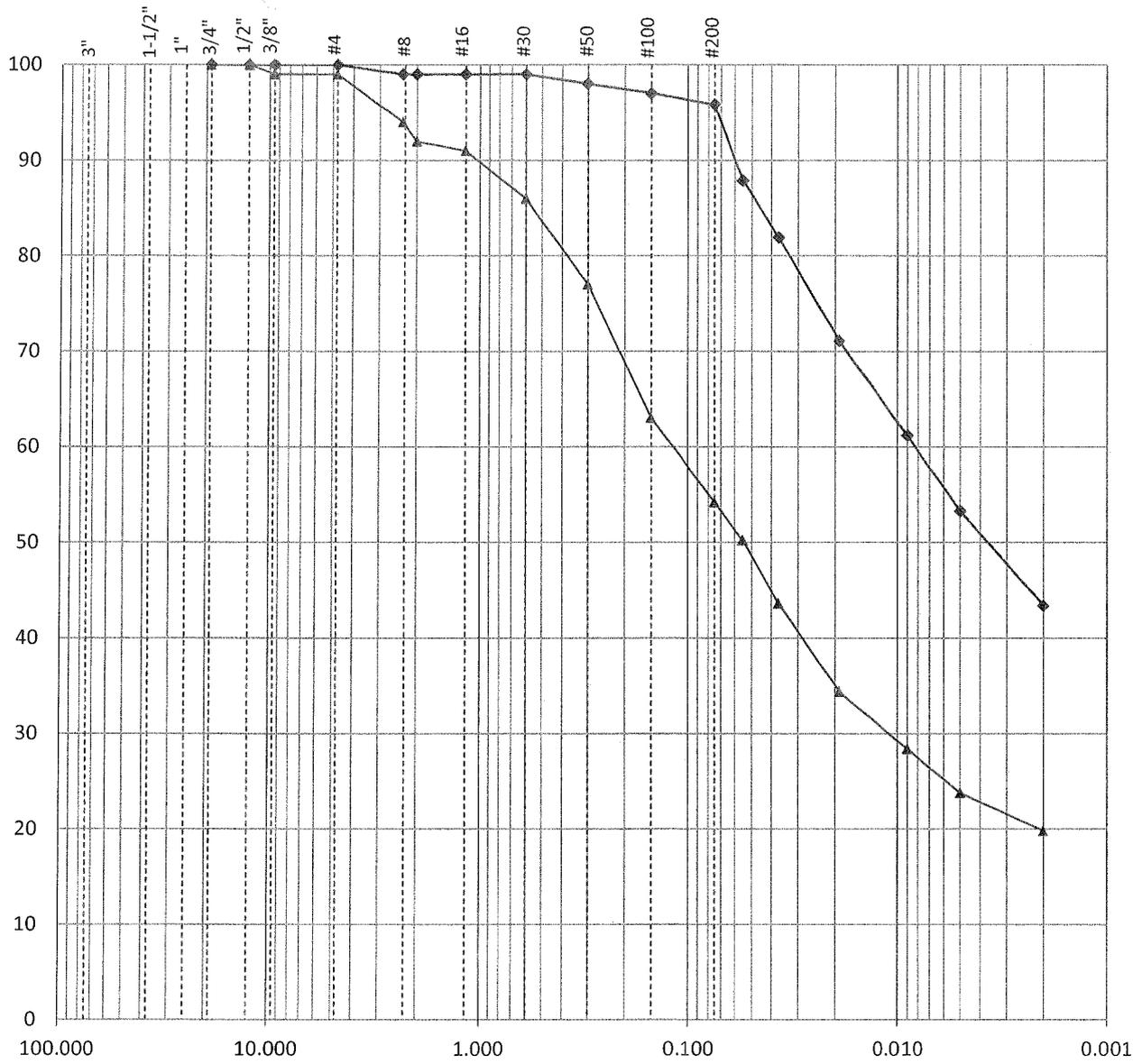
KEY TO BORING LOG SYMBOLS

JOB NUMBER: 3450.100

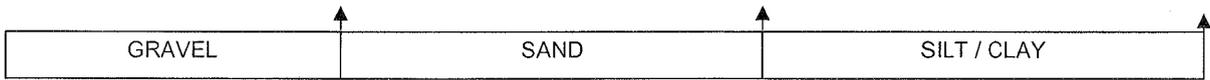
Depth in Feet	Moisture Content (%)	Dry Unit Weight (pcf)	Blows per foot	Unified Soil Classification System	
					Bulk Sample
					2.5-inch I.D. Split Barrel Sample
					2.8-inch I.D. Shelby Tube Sample
					No Sample recovered
					Standard Penetration Test interval
					Well-defined stratum change
					Gradual stratum change
					Interpreted stratum change
					Apparent ground water level measured at date noted; seasonal weather conditions, site topography, etc., may cause fluctuations in water level indicated on boring logs
					Stabilized ground water level measured at date noted

Note: Soils described as dry, moist, and wet are estimated to be dry of optimum, near optimum, and more wet than optimum moisture content, respectively. Saturated soils are estimated to be within areas of free groundwater.

JOB NUMBER: 3450.100 DATE: 9-11-12 BY: CC



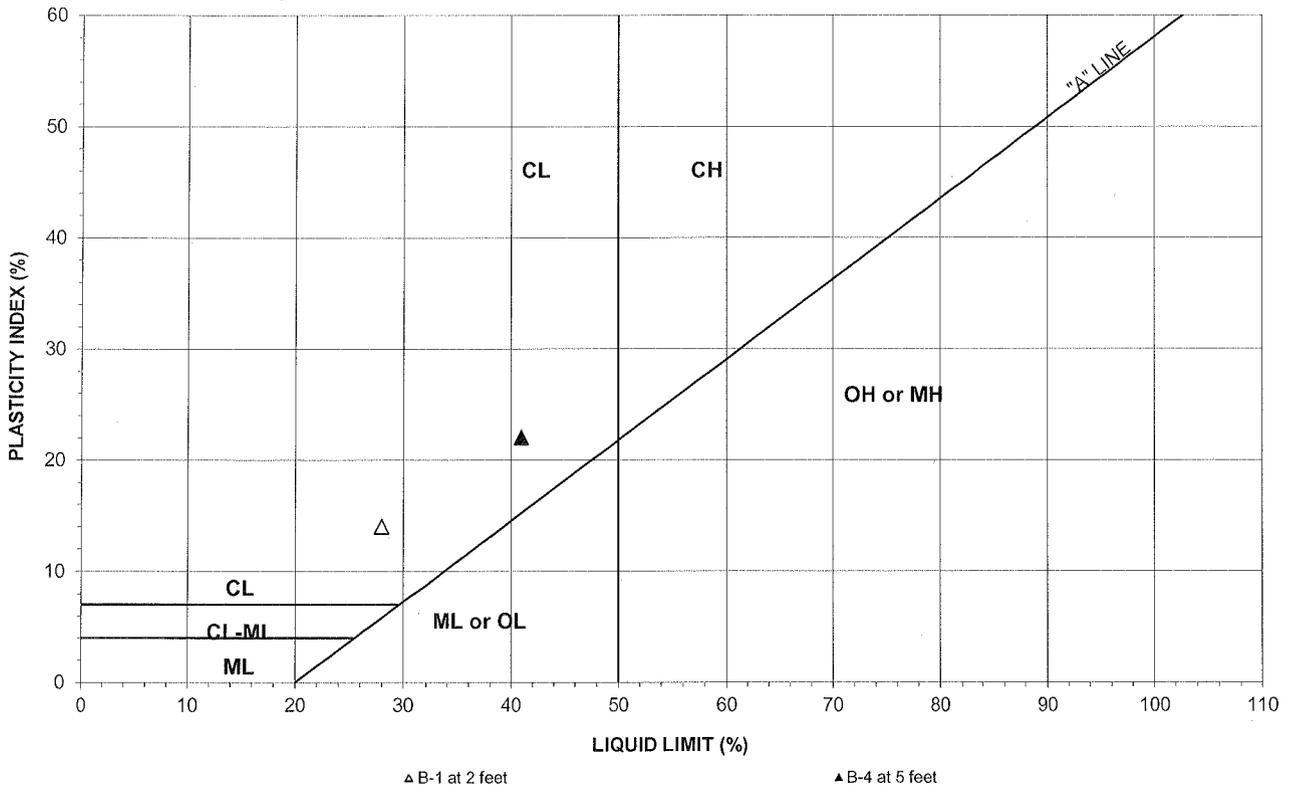
▲ B-1 at 2 feet ◆ B-4 at 5 feet



LOCATION	DESCRIPTION
B-1 at 2 feet	SANDY CLAY, red-brown
B-4 at 5 feet	SANDY CLAYSTONE, brown

GRADATION TEST DATA

JOB NUMBER: 3450.100 DATE: 9-11-12 BY: CC



LOCATION	LIQUID LIMIT	PLASTICITY INDEX	USCS CLASSIFICATION
B-1 at 2 feet	28	14	CL
B-4 at 5 feet	41	22	CL

ATTERBERG LIMITS TEST

APPENDIX A

Corrosivity Test Results



11 September 2012

Job No.1209017
Cust. No.10598

1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Mr. Bill Stevens
Berlogar Stevens & Associates
5587 Sunol Blvd.
Pleasanton, CA 94566

Subject: Project No.: 3450.100
Project Name: Abbott
Corrosivity Analysis – ASTM Test Methods with Brief Evaluation

Dear Mr. Stevens:

Pursuant to your request, CERCO Analytical has analyzed the soil sample submitted on September 05, 2012. Based on the analytical results, this brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurement, this sample is classified as "mildly corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentration reflects none detected with a detection limit of 15 mg/kg.

The sulfate ion concentration reflects none detected with a detection limit of 15 mg/kg.

The sulfide ion concentration reflects none detected with a detection limit of 50 mg/kg.

The pH of the soil is 6.8, which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

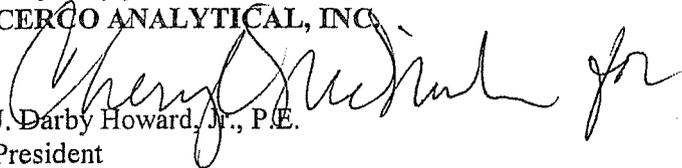
The redox potential is 470-mV, which is indicative of aerobic soil conditions.

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc.* at (925) 927-6630.

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,

CERCO ANALYTICAL, INC.


J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure

EXHIBIT 2

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Consulting Engineers Corp.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1000 Abbott Avenue

San Rafael, California

94901

EE Project Number 0000

Prepared for

Dic Development Company LLC

1000 Saratoga Avenue Site 000

San Jose, CA 95128

Prepared By

Consulting Engineers Corporation

1000 Scott Boulevard

Santa Clara, California 95050

95050 000 000000

Consulting Engineers Corp.

July 31, 2012
CEC Project Number 3128
via S Mail

Duc Development Company LLC
890 Saratoga Avenue, Suite 201
San Jose, CA 95129

Attn Dan Duc

Subject PHASE I ENVIRONMENTAL SITE ASSESSMENT
ABBOTT AENE
AMPBELL ALIORNIA

Dear Mr. Duc:

CEC is pleased to present the accompanying final report of the Phase I Environmental Site Assessment prepared for the subject Site.

CEC appreciates the opportunity to have been of service. Should you have any questions or require additional information or services please call us at (408) 327-5700.

Sincerely,



Benjamin Berman
Project Manager
Consulting Engineers Corporation

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FIGURE 4	SUBJECT SITE FEATURES
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APPENDICES ON CD

APPENDIX A	SITE PHOTOGRAPHS
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APPENDIX J	SUBJECT PROPERTY LUST CASE, NO FURTHER ACTION LETTER & CASE CLOSURE RECOMMENDATION

EXECUTIVE SUMMARY ON CONCLUSIONS AND RECOMMENDATIONS

Consulting Engineers Corp. (CEC) has completed a Phase I Environmental Site Assessment (ESA) of the property located at address 1181 Abbott Avenue, Campbell, California (referred to hereinafter as the Site, subject Site, or subject property). This Site assessment was prepared for Duc Development Company LLC in July 2012.

This assessment included the visual survey of the Site, exterior inspection of immediately adjacent properties, review of historical documentation, review of local agency files specific to the Site, and a review of regulatory databases that identify nearby sites of potential environmental concern. The purpose of this assessment was to evaluate the Site for real and potential environmental impairments, or risks of impairments, that may represent existing or potential financial and legal liabilities to Duc Development Company LLC and / or their agents.

Based on our review of available records, Site inspection, and / or interviews, the subject property formally contained gasoline and diesel underground storage tanks (USTs), was formally a leaking UST (LUST) site, was formally used for agricultural purposes (orchards), and contained storage sheds that may have been used to store pesticides and may have been used to store / maintain vehicles. Based on these conditions, and planned use for a new single family residential subdivision, recognized environmental conditions (RECs) and Business Environmental Risks were identified. Therefore, additional investigation may be warranted and is recommended. See below for details.

Findings and Opinions

Subject Property Location Description and Current Uses

The subject property is identified as Santa Clara County Assessor's Parcel Number 403-15-041, and is associated with 1181 Abbott Avenue in the City of Campbell, California. The property consists of one +/- 2.5 acre rectangular shaped parcel of land developed with one single family residence (3-bedroom, 1- bath, 2-car garage, estimated at +/- 2,000 square feet), a gazebo (covered patio) behind the house, and three storage sheds. To facilitate discussion, the three storage sheds have been designated as Shed 1, Shed 2 (divided into three sections designated as Shed 2A, Shed 2B, and Shed 2C), and Shed 3 (divided into two sections designated as Shed 3A and Shed 3B). Approximately 60% of the subject property consists of an open field on the north portion of the subject property (designated as the North Field). A much smaller open field, designated as the South Field, lies at the south end of the subject property. These two fields were formally orchards. The subject property was vacant and unoccupied at the time of the Site visit (July 2012).

Subject Property Historical Uses

Review of available information indicated that the subject property was undeveloped or used for agricultural purposes by the 1940s or earlier, and orchards existed on most of the subject property by the 1950s; most of the orchards were removed by circa 2002-2004 (the fields may have been used for other agricultural purposes after this period). The current single family residence and storage sheds were constructed beginning by the 1950s (these structures may have been subsequently modified / expanded or additional structures added since that period). Agricultural uses have been on a small scale (\pm 2.5 acres) since the 1950s / 1960s or earlier.

Adjacent Properties Historical and Current Uses

Surrounding / adjacent properties were primarily undeveloped / agricultural / orchards by the 1940s. It is inferred that by the 1970s / 1980s, most of the surrounding properties were developed for single-family residential use.

Subject Property Potential Concerns Originating from OnsiteFormer Underground Storage Tanks (USTs)

The subject property was a former leaking underground storage tank (LUST) site. The subject property formally contained three (3) underground storage tanks (USTs), a 350 gallon gasoline UST, a 550 gallon gasoline UST, and a 1,000 gallon diesel UST. All three USTs were removed from the subject property in April 1988. The two gasoline USTs were adjacent to each other and were removed from the same (one) excavation pit, and the diesel UST was removed from a separate excavation (there were two excavations, one containing the diesel UST and one containing the two gasoline USTs).

Soil samples, collected from the sidewalls and bottoms of the tank excavations, at depths ranging from approximately 4.5 to 10 feet, during removal of the USTs and impacted soil, contained up to 17 parts per million (ppm) total petroleum hydrocarbons (TPH) as diesel (TPH-D) in the diesel UST excavation, and up to 970 ppm TPH as gasoline (TPH-G) in the gasoline UST excavation. Up to three holes, up to 0.5 inches in diameter, were noted in the 350 gallon gasoline tank, while no holes were noted in the other two tanks. The inspector from the City of Campbell Fire Department, Mr. Tyrone Chew, reported that excavated soils did not show evidence of contamination (note that City of Campbell Fire Department operations were transferred to Santa Clara County Fire Department circa 1993). No free product was found at the site.

A deeper soil sample was collected at a depth of 17 feet using a hand auger, from the bottom of the gasoline UST excavation, during removal of impacted soil (over-excavation), and an additional 50 foot soil boring was drilled adjacent to the gasoline UST excavation in October 1988; soil samples were collected every five feet in the 50 foot boring. Soil samples from 17 feet and every 5 feet from the 50 foot boring were tested for TPH-G, and benzene, toluene, ethyl benzene, and total xylenes (BTEX compounds). No groundwater was encountered in the 50 foot boring; therefore, depth to groundwater below the subject property was inferred to be greater than 50 feet below the ground surface (bgs), and the soil beneath the subject property from approximately surface to approximately 10 feet bgs was found to be predominantly silty and clayey material based on information from the boring. The additional soil samples collected from the gasoline UST excavation, after removal of impacted soil, from 17 feet, and every five feet from the 50 foot boring, did not contain detectable levels of TPH-G or BTEX.

The subject property LUST site came under the oversight of the Santa Clara Valley Water District (SCVWD) on November 7, 1990 (note: the local LUST oversight agency is currently the Santa Clara County Department of Environmental Health). The SCVWD recommended case closure in the January 7, 1991 document, and the RWQCB issued a No Further Action letter dated January 15, 1991. Based on the above, the presence of the former USTs was not determined to be a current REC for the subject property. However, given the planned residential sub-division, it is a business environmental risk.

Storage Sheds

There are three existing storage sheds on the subject property that may have been in existence / use since the 1950s. One or more of these sheds may have been used to store pesticides or vehicles; also, lead paint may have been used to paint the exterior surfaces of the storage sheds in the past. These conditions have the potential to adversely impact the surface soils and / or subsurface of the subject property. No evidence or documentation of a significant release(s) was found; therefore, the three storage sheds were not determined to be current RECs for the subject property. However, given the intended residential subdivision, the storage sheds are business environmental risks.

Existing Single-Family House

The house on the subject property may have been in existence / use since the 1950s. Lead paint may have been used to paint the exterior surface of the existing single family residence in the past; this condition has the potential to adversely impact the surface soils and / or subsurface of the subject property. Given the intended residential subdivision, this is a business environmental risk.

Former Agricultural Use

The subject property was formally used for agricultural purposes; by the 1950s orchards covered most of the subject property. Pesticides, herbicides, and / or other substances associated with agricultural use may have been used; these have the potential to adversely impact the surface soils and / or subsurface. Given the intended residential subdivision, the former agricultural use was determined to be a REC for the subject property.

Adjacent Near Properties Potential Concerns

No concerns originating from off-site, with likely potential to significantly adversely impact the subsurface of the subject property, were identified. Several offsite Leaking Underground Storage Tank (LUST) or other release sites were listed in the radius report in the surrounding area. However, CEC concludes that based on the media affected (e.g. soil only), the substance released (e.g. petroleum hydrocarbons), distances from the subject Site, the age of the releases, the regulatory / cleanup status, the inferred down / cross gradient orientation (with regards to groundwater flow) relative to the subject Site, and / or other potential 'de minimus' condition (ASTM, November 1, 2005 [Section 1.1.1]), the likelihood that the subject Site is impacted at levels of regulatory concern by these listed sites is low.

Non-Science Considerations

- There may be a potential for vapor intrusion into structures on the subject property, primarily from / in the vicinity of former gasoline and diesel underground storage tanks (USTs) at the subject property.
- Based on the dates of construction of the structure on the subject property (1950s), it is possible that asbestos-containing building materials (ACBMs) were utilized in construction. Even after the manufacture of ACBMs was banned in 1981, stocks of ACBMs continued to be used until the mid 1980s. No asbestos sampling was done as part of this current investigation. During any demolition, renovation, or any other activity that may disturb the building materials, the materials

should be inspected by an AHERA Accredited Asbestos Building Inspector or handled as Asbestos-containing.

- Based on the dates of construction of the structures on the subject property (1950s), it is possible that Lead Paint was used on painted surfaces. No sampling for lead paint was done as part of this current investigation. Prior to any demolition, renovation or any other activity that may disturb painted surfaces, a Lead Paint Survey should be performed by a state certified / licensed lead inspector / assessor or the removed material should be handled / removed by a licensed lead paint removal contractor.

Conclusions Recommendations

Consulting Engineers Corp. has performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Standard Practice E 1527 of 1181 Abbott Avenue in the City of Campbell, California, the *property*. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report.

This assessment has revealed no evidence of *recognized environmental conditions* in connection with the *property* **existence or the following**

- The subject property was formally used for agricultural purposes (orchards), and given the intended residential subdivision; this was determined to be a REC. Additional investigation regarding former agricultural use is warranted and recommended.

Business environmental risks:

- Given the intended residential subdivision, restricted use of the former UST locations may be warranted. Significant subsurface disturbance and building of future residences directly over the former UST locations should be avoided if possible. If significant subsurface disturbance and / or building of future residences directly over the former UST locations are planned, additional investigation of the former UST locations may be warranted and / or engineering controls (i.e., vapor barrier, venting) may be warranted.
- Given the intended residential subdivision, restricted use of the shed locations may be warranted. Significant subsurface disturbance and building of future residences directly over the locations of the storage sheds should be avoided if possible. If significant subsurface disturbance and / or building of future residences directly over the shed locations are planned, additional investigation of the shed locations may be warranted.

Even if there is no significant subsurface disturbance and / or building of future residences directly over the shed locations, given the planned residential subdivision, these locations should be restricted in use and / or capped (i.e., paved) if possible. If restricted use and / or capping of the shed locations are not planned / possible, then additional investigation of the shed locations may be warranted. Alternatively, "pre-emptive" remediation may be warranted (i.e., removal of surface soil / near surface soil in specific locations of potential concern).

- Given the intended residential subdivision, and the possibility that lead paint may have been used to paint the exterior surface of the existing single family residence in the past; additional investigation may be warranted.

□□□ PURPOSE AND SCOPE

This report presents the results, conclusions, and recommendations from the Phase I Environmental Site Assessment (ESA) for the property located at 1181 Abbott Avenue in the City of Campbell, California (hereinafter referred to as the "Site", "subject Site", or "subject property").

□□□ Purpose

The purpose of this investigation was to conduct an environmental assessment that would address real and potential environmental impairments, or risks of impairments, that may represent existing or potential financial and legal liabilities to Duc Development Company LLC and / or their agents. CEC assumes the purpose of this ESA is to qualify for Landowner Liability Protections (LLP) to Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability, to understand potential environmental conditions that could materially impact the operation of the business(es) associated with the parcel(s) of commercial real estate, and / or for other purposes associated with business environmental risk (we were not informed of any other purpose).

□□□ Scope of Services

The Scope of Services for the performance of this Phase I ESA included the following tasks:

- ◆ Research and review available geologic and hydrogeologic information concerning the Site and its environment.
- ◆ Review available historical documentation of the property to determine what activities have occurred at the Site and immediately adjacent sites since the Site's first developed use or since 1940 (whichever is earlier).
- ◆ Generally survey current uses of immediately adjacent properties.
- ◆ Inspect the Site to determine current on-Site activities and past uses.
- ◆ Review available files / records, request public records, submit an inquiry to, and or obtain online information from the following state or local regulatory agencies for the subject Site address(es):
 - Regional Water Quality Control Board (RWQCB)
 - Bay Area Air Quality Management District (BAAQMD)
 - Santa Clara Valley Water District (SCVWD)
 - Santa Clara County Department of Environmental Health (SCCDEH)
 - Santa Clara County Department of Planning and Development (SCCDPD)
 - Santa Clara County Fire Department (SCCFD) (providing fire services for City of Campbell)
 - Campbell Building Department (CBD)
 - Santa Clara County Assessor's Office (SCCAO)
- ◆ Acquire a review of federal, state and county publications (radius report) to identify the Site and nearby sites listed on the following databases or current equivalents:
 - National Priority List (NPL)

- Resource Conservation and Recovery Act (RCRAInfo)
 - Region 9, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
 - RCRA Treatment, Storage and Disposal (TSD) Facilities
 - Emergency Response Notification System (ERNS)
 - Leaking Underground Storage Tanks (LUST) sites
 - Registered underground storage tank (UST) sites
- ◆ Review available reports concerning on-going investigations at nearby agency-listed sites.
- ◆ Prepare this report in general accordance with the document entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessments Process* (The American Society for Testing and Materials [ASTM], E 1527-05).

□□□ **Li□itations**

Assessments are performed on subject property identification information (street addresses and parcel numbers) provided by the client / user at the initiation and authorization of the work. The conclusions of this report are based solely on the Scope of Services outlined above, and on the sources of information referenced in this report. Any additional information that becomes available concerning this Site should be submitted to Consulting Engineers Corp. so that our conclusions may be reviewed and modified, if necessary. Conducting environmental sampling (i.e. soil, groundwater, vapor / air, building materials) is outside the scope of this Phase 1 ESA. Other Non-scope considerations outside the scope of this Phase 1 ESA include, but are not limited to: screening for the possibility of vapor intrusion into buildings or structures, indoor air quality, asbestos containing building materials, radon, lead-based paint, and mold.

The accompanying report presents a description of the work performed by Consulting Engineers Corp. and was prepared using guidelines presented in the document entitled, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (The American Society for Testing and Materials [ASTM], E 1527-05). It should be noted that this report has been prepared to generally accepted industry standards and may need to be modified to meet specific lender requirements.

This document has been prepared according to generally accepted practices. No other warranty, either expressed or implied as to the methods, results, conclusions or recommendations is made. The user is notified that uncertainty is not eliminated, assessments are not exhaustive, reasonable time and cost constraints and other limitations are inherent, certain conditions may not be detected during an assessment of this type, and no level of assessment can guarantee that a site is completely free of hazardous substances. This assessment was based on a specific scope of work with a defined budget, was not intended to be comprehensive, identify all potential concerns, or eliminate the possibility of any environmental impacts to the subject property. The results of all assessments are subject to differing professional interpretations and opinions, the conclusions of others may differ. If you wish to reduce the level of uncertainty associated with this study, we should be contacted for additional consultation. Regulatory agency environmental regulations, priorities, and enforcement change over time and tend to get stricter / more conservative; potential impacts previously unknown or of little concern, such as but not limited to vapor intrusion, tend to become more important environmental regulatory concerns over time.

The findings, analysis, opinions, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our assessment and review of practically reviewable information relevant to the site conditions that was reasonably available and ascertainable at the time of this assessment. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes. This assessment and report are for the sole use of the client, reliance upon the information in this report by others is solely at their own risk. Nothing in this report shall be construed as a legal opinion, this assessment / report may be based in part upon verbal or written information possessed by the client / user or other non-public privately owned information, and all of Consulting Engineers Corp.'s Standard Terms and Conditions and Limitations apply at all times to this report and all reports by Consulting Engineers Corp..

PHYSICAL AND ENVIRONMENTAL SETTING

Topography

The Site's physical location was researched employing the current United States Geological Survey (USGS) 7.5-Minute Topographic Quadrangle Map section relevant to the Site. The 7.5-Minute Map has an approximate scale of 1 inch to 24,000 inches, and shows physical features such as wetlands, water bodies, railways and roadways, mines, wells, and buildings. The physical and natural features illustrated on the topographic map serve as areas of visual emphasis to note when conducting the on-Site visit.

The San Jose West Quadrangle Topographic Map (dated 1961, photo-revised in 1980) shows no physical features that would likely environmentally impact the Site. The map reveals no storage tanks, mines, or wells in the immediate area. This topographic map shows the elevation of the Site to be approximately 230 to 235-feet above mean sea level with an approximate northerly to easterly topographic gradient direction. A Santa Clara Valley Water District (SCVWD) concrete lined water channel (Smith Creek) lies adjacent to the subject property's south property boundary. The water channel continues south and east to northeast of the subject property.

Regional Geology

The Site is located in the Coast Range Province. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Pt. Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands (California Geographical Survey, 2002).

LAND USE HISTORY

A review of readily available, standard historical sources (as defined in ASTM E 1527-05) was performed to assist in establishing any significant past uses of the Site and immediately adjacent properties. The review attempted (to the extent of readily available sources) to encompass the years since the first obvious developed use of the Site, or since 1940, whichever is earlier. The following subsections present a summary of our findings from our review of each source.

Review of available building and fire department records, city directories, Sanborn maps, previous environmental investigations, historical aerial photographs, historical topographic maps and / or interviews indicated that the subject property was undeveloped or used for agricultural purposes by the 1940s or earlier, and orchards existed on most of the subject property by the 1950s; most of the orchards were removed by circa 2002-2004 (the fields may have been used for other agricultural purposes after this period). The current single family residence and storage sheds were constructed beginning by the 1950s (these structures may have been subsequently modified / expanded or additional structures added since that period). Agricultural uses have been on a small scale (\pm 2.5 acres) since the 1950s / 1960s or earlier. The subject property was vacant / unoccupied at the time of the Site visit in July 2012.

Surrounding / adjacent properties were primarily undeveloped / agricultural / orchards by the 1940s. It is inferred that by the 1970s / 1980s, most of the surrounding properties were developed for single-family residential use.

Historical Topographic Maps

Historical Topographic Maps from 1899, 1953, 1961, 1968, 1973, and 1980 were reviewed. The Topographic Maps from 1968, 1973, and 1980 were photo revised from the 1961 map. A Historical Topographic Map from 1953 indicated that the subject property was orchards at that time. Historical Topographic Maps are presented in Appendix C.

Review of Aerial Photographs

Historical aerial photographs supplied by GeoSearch were reviewed to help evaluate past land uses on the Site and surrounding properties. In addition, the photographs were reviewed for evidence of hazardous materials and features that may have impacted the Site and general vicinity. These features included, but were not limited to, landfills, ponds, pits, staining or distressed vegetation, aboveground storage tanks, lagoons, exterior storage of hazardous materials, and general land use practices.

Aerial photographs taken in 1948, 1956, 1968, 1995, and 2005 were reviewed (Appendix E). A summary of aerial photographs is provided in the table below.

Sanborn Aerial Photograph Review

Year	Site Use	Site Observations
1948	Agricultural	The Subject Site and all immediately adjacent properties appear to be agricultural fields. The subject property may be part of a larger agricultural property. A single-family residence appears on an adjacent property to the north of the current subject property.
1956	Agricultural / Single-Family Residence	The resolution / scale of the aerial photograph was insufficient to allow adequate identification of development and activities, however....the subject property appears to be orchards. Structures appear on the south side of the subject property near the southeast and southwest property boundaries in the approximate locations as the current single-family house and sheds. Most immediately adjacent properties appear to be orchards or agricultural fields with a few single-family residences.
1968	Agricultural / Single-Family Residence	The subject property appears similar to the previous photograph, the current north and south fields appear as orchards, and the current single family residence and sheds appear in their current locations. A large adjacent property to the west, previously orchards, appears under development, adjacent property to the south is single-family residential, adjacent property to the east is undeveloped field (possible agricultural) with single-family residence, and adjacent property to the north is orchards with a single-family residence.
1995	Agricultural / Single-Family Residence	The subject property appears similar to the previous photograph, the current north and south fields appear as orchards, and the current single family residence and sheds appear in their current locations. The adjacent properties to the south, west, and north all appear as single family residential, and the adjacent property to the east appears similar to the previous photograph, undeveloped field (possible agricultural) with single-family residence.
2005	Possible Agricultural / Single-Family Residence	The subject property and adjacent properties appear similar to the previous photograph. Orchards no longer appear on the subject property, the north and south fields of the subject property appear as open fields. The subject property and adjacent properties generally appear similar to the current condition at the time of the Site visit (July 2012).

Historical Fire Insurance Maps

Maps produced by the Sanborn Fire Insurance Company for major cities and towns depict structures, building materials, uses, USTs, gas lines, etc. These maps were typically produced beginning prior to 1900 and were often updated into the 1970s. These maps are valuable sources of information in determining prior usage, provided the site's location is within city limits as they were defined in the early to mid-1900s. The results of the Sanborn Map search are presented in Appendix F. The subject Site at 1181 Abbott Avenue did not have Sanborn map coverage, indicating that there was no urban development at the site during the period of coverage.

City Directories

City directories have been published for major cities and towns across the United States since the 19th century. City directories published in the 20th century also included a street index for each street address during a given year. City directories are a valuable source of historical information with regard to Site tenancy and use. CEC reviewed city directories as provided by GeoSearch for the subject Site address; a copy of the city directory is presented in Appendix D. Information is provided in the table below for those years where information on the subject Site was found. Listings for adjacent / surrounding properties appeared to be mostly individual owner / occupants of single-family residences.

Subject Address City Directories Reviewed

Year	Owner / Occupant
	10000 Abbott Avenue (Subject Property)
1900, 1901	Street Not Listed
1902, 1903	Taacco Brothers, Taacco (lease)
1904	Taacco (lease)
1905, 1906, 1907, 1908	Address Not Listed
1909-1911	Taacco (lease)
1912-1914	Taacco (lease)
1915	McKee Armin

User Provided Data from Non-Public Sources Questionnaire Interviews

During this *Phase I Environmental Site Assessment* no previous reports on the subject Site property of significant relevance to the performance of this *Phase I Environmental Site Assessment* were made available for our review by Site contacts, potential users of this *Phase I Environmental Site Assessment*, or other non-public sources of information.

Questionnaire

Two copies of CEC’s standard Phase I assessment Questionnaire, which includes questions in accordance with the ASTM Standard Practice E 1527-05, were completed on June 28, 2012, one by Mr. Al Barnett of Duc Development Company, representing the prospective purchaser of the subject property, and one by Mr. Armin “J.R.” McKee Sr., representing the current owner of the subject property; copies of the completed questionnaires are included as Appendix I. Generally, no new or additional information was obtained from the two completed questionnaires that were not also available from other sources. A telephone interview was also conducted with Mr. Armin “J.R.” McKee Sr., see below.

Interviews

Except where indicated otherwise all interviews were conducted via telephone by Mr. Benjamin Berman of CEC. On July 5, 2012, a telephone interview was conducted with Mr. Armin "J.R." McKee Sr., Mr. McKee represents the current property owner. The following is information obtained from Mr. McKee during the telephone interview. Mr. McKee is currently the trustee for the current property owner, prior to his role as trustee; Mr. McKee was the executor of the estate of the current property owner, beginning circa 2002. The subject property owner, Mr. Clemente Tobacco, died about three years ago. Mr. McKee knew Mr. Tobacco for about 30 years. Mr. Tobacco acquired the subject property circa 1960-1961. The subject property was orchards, prune trees (not plum trees), when Mr. Tobacco acquired the subject property. Mr. McKee removed most of the orchard trees circa 2002-2004. Mr. McKee said he was the person who removed the former fuel underground storage tanks (USTs), he said all was clean and said to refer to the UST closure documents (section 6.5, SCCDEH). Mr. McKee indicated that some of the sheds may have stored tractors and there may have been some minor oil drippings from tractors. He also indicated that there may have been small amounts of pesticides stored in the sheds for the former orchards, yet he also said that prune trees do not require much pesticide. Mr. McKee was not aware of any other hazardous materials / wastes, or chemicals on the subject property or adjacent properties.

□□□ SITE RE□ONNAISSAN□E

Benjamin Berman of Consulting Engineers Corp., conducted a Site visit and inspection on July 10, 2012. Site photographs are presented in *Appendix A*. Mr. Berman was accompanied by Mr. Al Barnett of Duc Development Company, the prospective purchaser of the subject property. All observations are valid as of the date of the Site inspection.

□□□ Site Descri□tion and □eneral O□servations

A Site Location & Vicinity Map (on topographic base, Figure 1), Subject Site and Adjacent Properties – Google Earth Image™ (Figure 2), Subject Site and Adjacent Properties – Sites Labeled (Figure 3), and Subject Site Features (Figure 4) are provided in the *Figures* section of this report. Site photographs are included in *Appendix A*.

The Site is identified as Santa Clara County Assessor's Parcel Number 403-15-041, and is associated with 1181 Abbott Avenue in the City of Campbell, California. The property consists of one +/- 2.5 acre rectangular shaped parcel of land developed with one single family residence (3-bedroom, 1- bath, 2-car garage, estimated at +/- 2,000 square feet), a gazebo (covered patio) behind the house, and three storage sheds. See Figure 4. To facilitate discussion, the three storage sheds have been designated as Shed 1, Shed 2 (divided into three sections designated as Shed 2A, Shed 2B, and Shed 2C), and Shed 3 (divided into two sections designated as Shed 3A and Shed 3B). Approximately 60% of the subject property consists of an open field on the north portion of the subject property (designated as the North Field). A much smaller open field, designated as the South Field, lies at the south end of the subject property. These two fields were formally orchards. The subject property was vacant and unoccupied at the time of the Site visit.

Exterior Observations

- The North and South Fields appeared to be recently tilled.
- No items of potential significant environmental concern were observed on the exterior grounds of the subject property.
- Aboveground Storage Tanks (AST) were not observed on Site during the exterior Site Inspection.
- Underground Storage Tanks (UST) or associated items indicating a UST system (vent pipe, fill access, re-pavement) were not observed on Site during the exterior Site inspection.
- Storage drums were not observed during the exterior Site inspection.
- The vegetation on the Site showed no obvious signs of abnormal biological stress, a common indicator of subsurface contamination.
- Surface runoff on the Site is expected to percolate into the ground through the open fields, and /or flow into the water channel adjacent to the south side of the subject property,
- Pits, ponds, or lagoons were not observed on the Site.
- Discernible odors were not noted during the exterior Site Inspection.
- Pools of liquid were not observed on the Site exterior.
- No transformers were observed on the subject Site.

Interior Observations

- No items of potential significant environmental concern were observed in interior spaces of the house and sheds at the subject property.

- Generally, the interior spaces of the three sheds were mostly empty except for various garbage, debris, or stored items.
- The interior of Shed 1 was observed to have a concrete floor. No significant staining was observed on the floor in accessible / visible areas. The interior of Shed 1 contained various garbage / debris, including several empty cardboard boxes, a few newspapers, two empty circular cardboard bins, and a few empty plastic bags.
- The interior of Shed 2A was observed to have a wood plank floor. No significant staining was observed on the floor in accessible / visible areas. The interior of Shed 2A contained various garbage / debris, including several empty wood boxes, plastic sheeting, and some empty plastic bags.
- The interior of Shed 2B was observed to have a concrete floor. No significant staining was observed on the floor in accessible / visible areas. The interior of Shed 2B contained various garbage / debris, including an old rusty empty 5-gallon metal gas can, some wood boards, an old rusty empty 5-gallon metal pale, an empty 1-gallon metal paint can, a few more mostly empty metal containers of 1-gallon size or less, a 1-gallon metal container with contents not determined, a 5-gallon white plastic pale containing garbage and old paint brush, and a couple of old tarps.
- The interior of Shed 2C was observed to have a wood plank floor. No significant staining was observed on the floor in accessible / visible areas. The interior of Shed 2C was mostly empty, however, it contained a few pieces of old furniture, an old metal tire rim (from a truck or tractor ?), and a 1-gallon plastic container of a household over-the-counter cleaner.
- The interior of Shed 3A was observed to have a dirt floor. No significant staining was observed on the floor in accessible / visible areas. The interior of Shed 3A contained various garbage / debris, including a pile of garbage / debris (old empty garbage cans, wooden shelves, a ladder, old tarps, cardboard boxes, garden hose, etc) near the front (partially outside), a pile of black plastic trash bags containing trash near the center, a wheel barrel, a children's bicycle, a wooden work bench at the back (two small fire extinguishers on work bench), another work bench at the north side with an old electric grinder / polisher and microwave oven on top, and stored wood boards on a raised wooden storage platform on the north side.
- The interior of Shed 3B was observed to have a dirt floor. No significant staining was observed on the floor in accessible / visible areas. The interior of Shed 3B was mostly empty, however it contained a pile of about a half dozen tires (from a truck or tractor ?) at the back, some stored wood boards / beams on concrete / masonry blocks.
- Sheds 2B, 3A, and 3B appeared configured such that they could potentially accommodate the storage of tractors or other vehicles.
- During the Site inspection no hazardous materials were observed within the interior spaces of the subject property with the possible exception of where noted above.
- Interior spaces were generally poorly maintained / in poor or aged condition.

☐☐☐ **Additional Non-Scope Services**

No additional non-scope services were performed as part of this Phase I ESA.

☐☐☐ **Adjoining and Neighboring Properties Description**

Consulting Engineers Corp. performed a limited visual inspection of immediately adjoining properties to evaluate their potential environmental significance to the Site. See Figure 3. The properties immediately surrounding the Site included all single-family residential. The adjacent property to the east includes a large open field (possible agricultural).

No readily observable items (such as the presence of currently existing gasoline service stations or dry cleaners) of likely or potential environmental concern to the subject property were observed during the site inspection on any of these immediately adjoining properties; the user is cautioned that some potential concerns (such as, but not limited to, past uses and subsurface impacts) cannot be identified from offsite / exterior observations.

RECORDS AND CORRESPONDENCE REVIEW

To further evaluate potential sources of contamination originating from on and/or off-site sources, a review of published agency documents, agency files, and other pertinent documents was performed. Generally, information regarding potential off-site sources is obtained from federal and state agency listings, while local agencies offer more site-specific information.

Federal and State Records Sources

Consulting Engineers Corp. contracted with GeoSearch for the performance of an environmental database search to identify agency-listed sites of potential environmental significance located within a one-mile radius of the Site. The GeoSearch database identifies sites that fall under most of the following or equivalent categories:

NPL	National Priority List (Federal Superfund Sites)
ERLISIRAP	EPA State Superfund Sites
ORRATS	EPA Corrective action facilities
RARAEN	Small and large quantity generators of hazardous waste
ERNS	Emergency Response Notification System Sites
MIRS	Hazardous Materials Information Reporting System
TRIS	Toxic Release Inventory System
TSAA	Toxic Substance Control Act
TTS	Federal Insecticide, Fungicide, & Rodenticide Act/TSCA
SSTS	Section 7 Tracking System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
INDS	Facility Index System
RAATS	RCRA Administrative Action Tracking System
ALSITES	Potential or confirmed hazardous release properties
RE	Unconfirmed Properties Referred to Another Agency
LST	Sites with Leaking Underground Storage Tanks
SL State Landfill	Permitted solid waste State landfills, incinerators, or transfer stations
DEED	Deed restriction sites
ORTESE	Hazardous Waste Substance Sites
TOXI Pits	Toxic pits cleanup facilities
STAST	Registered Underground or Aboveground Storage Tank Sites
MIRS	California Hazardous Materials Information Reporting System
A DS	Waste Discharge System
ASLI	Statewide Spills, Leaks, Investigations and Cleanups
SEEPS ST	Statewide Environmental Evaluation and Planning System
NOTI	Proposition 65 Records
DR CLEANERS	Drycleaner related facilities with EPA ID numbers
ANET	Facility and Manifest Data
EMI	Emissions Inventory Data

The GeoSearch Radius Map report is presented in *Appendix H*.

□□□ □ont□ination Migration

Fuel Leak Attenuation

In fuel leak cases, research conducted at the Lawrence Livermore National Laboratory (LLNL) indicates that attenuation and degradation play major roles in reducing hydrocarbon contamination in groundwater to non-detectable levels within several hundred feet of the contaminant source. Moreover, this research indicates that in over 90% of the petroleum hydrocarbon contamination cases, groundwater contaminant plumes do not extend more than 250-feet from the source; however, a gasoline additive called Methyl Tertiary Butyl Ether (MTBE) has been found to be more mobile in groundwater compared to gasoline and gasoline break-down products. Findings indicate that MTBE is highly soluble in water and moves easily through soil particles and into groundwater where it may spread over a distance greater than 250 feet. MTBE will transfer to groundwater from gasoline leaking from USTs, pipelines, car emissions into the atmosphere, and other components of gasoline vapor distribution. MTBE has been an additive to gasoline since approximately 1985.

Toxic-Leak Attenuation

In the case of toxic substances in the groundwater, namely the more mobile Volatile Organic Compounds (VOCs), detectable levels may extend several thousand feet from the source. In most VOC groundwater plume cases, however, attenuation will act to reduce the contamination to non-detectable levels within one-half mile of the source.

Groundwater Flow

Site-specific information on groundwater flow direction, depth and quality can only be confirmed through the installation and survey of a minimum of three on-site depth to water groundwater-monitoring wells. No indication was found that depth to water groundwater monitoring wells ever existed on the subject Site, therefore a determination of groundwater flow direction beneath the subject Site was not possible. Shallow regional groundwater flow directions can typically be assumed to follow topographic gradients. The subject property was found to have an approximate northerly to easterly topographic gradient direction. However, it should be noted that groundwater flow directions and depths are variable and subject to site-specific influences, such as creek channels and groundwater pumping, and undiscovered shallow perched / seasonal groundwater may occur. A Santa Clara Valley Water District (SCVWD) concrete lined water channel (Smith Creek) lies adjacent to the subject property's south property boundary. The water channel continues south and east to northeast of the subject property.

Standard Local Agency Records and Correspondence

During the review of standard environmental records, Consulting Engineers Corp. used the following information sources:

- Regional Water Quality Control Board (RWQCB) / GeoTracker
- Bay Area Air Quality Management District (BAAQMD)
- Santa Clara Valley Water District (SCVWD)
- Santa Clara County Department of Environmental Health (SCCDEH)
- Santa Clara County Department of Planning and Development (SCCDPD)
- Santa Clara County Fire Department (SCCFD) (providing fire services for City of Campbell)
- Campbell Building Department (CBD)
- Santa Clara County Assessor's Office (SCCAO)

Synopses of records and correspondence reviewed for the Site at the following agencies are presented below:

Regional Water Quality Control Board (RWQCB) / GeoTracker

Consulting Engineers Corp. (CEC) submitted a request for public files to the RWQCB on June 28, 2012; the RWQCB indicated that they have no files for the subject property.

CEC searched the RWQCB GeoTracker online files on July 19, 2012, for information regarding LUSTs and hazardous materials spills or other potential concerns that may significantly adversely affect the subsurface of the subject Site. Information for the subject property was found, this was the same information found from another source (see SCCDEH, below). No additional items of significant environmental concern to the subject property were identified from RWQCB / GeoTracker reviews.

Bay Area Air Quality Management District (BAAQMD)

CEC submitted a request for public records for the subject property to the BAAQMD on June 28, 2012; the BAAQMD indicated that they do not have records for the subject property.

Santa Clara Valley Water District (SCVWD)

CEC contacted the SCVWD on June 28, 2012 to inquire if there are any records indicating the existence of wells on the subject property. The SCVWD indicated that there are no registered wells on the subject Site. During the Site inspection no wells were observed.

Santa Clara County Department of Environmental Health (SCCDEH)

CEC submitted a request for public records for the subject property to the County of Santa Clara on June 28, 2012; the County of Santa Clara indicated that they do not have records for the subject property.

CEC searched the SCCDEH online Leaking Underground Storage Tank (LUST) files on July 19, 2012, for information regarding LUSTs that may significantly adversely affect the subsurface of the subject Site. Information was found regarding the subject property; a No Further Action Letter (RWQCB, January 15, 1991) and a Case Closure Recommendation (SCVWD, January 7, 1991). This information is provided as Appendix J. The following summary is based on the information found.

The subject property was a former LUST site. The subject property formally contained three (3) underground storage tanks (USTs), a 350 gallon gasoline UST, a 550 gallon gasoline UST, and a 1,000 gallon diesel UST. All three USTs were removed from the subject property in April 1988. The two gasoline USTs were adjacent to each other and were removed from the same (one) excavation pit, and the diesel UST was removed from a separate excavation (there were two excavations, one containing the diesel UST and one containing the two gasoline USTs).

Soil samples were collected from the sidewalls and bottoms of the tank excavations, at depths ranging from approximately 4.5 to 10 feet, during UST removal, contained up to 17 parts per million (ppm) total petroleum hydrocarbons (TPH) as diesel (TPH-D) in the diesel UST excavation, and up to 970 ppm TPH as gasoline (TPH-G) in the gasoline UST excavation. Up to three holes, up to 0.5 inches in diameter, were noted in the 350 gallon gasoline tank, while no holes were noted in the other two tanks. The inspector from the City of Campbell Fire Department, Mr. Tyrone Chew, reported that excavated soils did not show evidence of contamination (note that City of Campbell Fire Department operations were transferred to SCCFD circa 1993). No free product was found at the site.

A deeper soil sample was collected at a depth of 17 feet using a hand auger, from the bottom of the gasoline UST excavation, during removal of impacted soil (over-excavation), and an additional 50 foot soil boring was drilled adjacent to the gasoline UST excavation in October 1988; soil samples were collected every five feet in the 50 foot boring. Soil samples from 17 feet and every 5 feet from the 50 foot boring were tested for TPH-G, and benzene, toluene, ethyl benzene, and total xylenes (BTEX compounds). No groundwater was encountered in the 50 foot boring; therefore, depth to groundwater below the subject property was inferred to be greater than 50 feet below the ground surface (bgs), and the soil beneath the subject property from approximately surface to approximately 10 feet bgs was found to be predominantly silty and clayey material based on information from the boring. The additional soil samples collected from the gasoline UST excavation, after removal of impacted soil, from 17 feet, and every five feet from the 50 foot boring, did not contain detectable levels of TPH-G or BTEX.

The subject property LUST site came under the oversight of the Santa Clara Valley Water District (SCVWD) on November 7, 1990 (note: the LUST oversight agency is currently the SCCDEH). The SCVWD recommended case closure in the January 7, 1991 document, and the RWQCB issued a No Further Action letter dated January 15, 1991.

Santa Clara County Department of Planning and Development (SCCDPD)

CEC personnel performed a walk-in file review at the SCCDPD on July 10, 2012; the SCCDPD indicated that they have no records for the subject property. The SCCDPD indicated that the subject property is part of (incorporated into) the City of Campbell.

Santa Clara County Fire Department (SCCFD) (providing fire services for City of Campbell)

CEC submitted a request for public records for the subject property to the SCCFD on June 28, 2012. The SCCFD indicated they have the same LUST records for the subject property that are also available from the RWQCB GeoTracker and SCCDEH; see SCCDEH above. According to the SCCFD representative, they have a file that only covers the UST closures (1988-1991) including additional items such as the permit to remove the USTs, etc. However, given the documents already obtained from the SCCDEH online LUST files (Case Closure Recommendation from the SCVWD: providing UST site history, investigative methods, tank and soil removal and remediation – over-excavation, etc, and the RWQCB No Further Action letter), it was determined that a walk-in file review at SCCFD was unlikely to result in significant new information not already obtained from other sources, therefore no walk-in file review at SCCFD was performed.

Campbell Building Department (CBD)

CEC submitted a request for public records for the subject property to the CBD on June 28, 2012; the CBD indicated that they do not have any records for the subject property.

Santa Clara County Assessor

An assessor's map for 403-15-041 was obtained on someday from the Santa Clara County Assessor's Office online database.

□□□ Data □ a□s and Data □ ail□re

Significant data gaps / data failure were not identified. Former diesel and gasoline USTs, and impacted soil, at the subject property were removed under local agency oversight, confirmation sampling indicated no additional impact or minimal impact, and a No Further Action letter was issued by the oversight agency; therefore, the presence of the former USTs was not determined to be a current Recognized Environmental Condition (REC) for the subject property. However, given the intended future use (residential), the former USTs are a Business Environmental Risk and restricted use of the former UST locations may be warranted. Significant subsurface disturbance and building of future residences directly over the former UST locations should be avoided if possible. If significant subsurface disturbance and / or building of future residences directly over the former UST locations are planned, additional investigation of the former UST locations may be warranted and / or engineering controls (i.e., vapor barrier, venting) may be warranted.

Three storage sheds may have been used to store pesticides or vehicles; also, lead paint may have been used to paint the exterior surfaces of the storage sheds in the past. However, no evidence or documentation of a significant release(s) was found; therefore, the three storage sheds were not determined to be current RECs for the subject property. However, given the intended future use (residential), the storage sheds are a Business Environmental Risk and

restricted use of the shed locations may be warranted. Significant subsurface disturbance and building of future residences directly over the locations of the storage sheds should be avoided if possible. If significant subsurface disturbance and / or building of future residences directly over the shed locations are planned, additional investigation of the shed locations may be warranted. Even if there is no significant subsurface disturbance and / or building of future residences directly over the shed locations, given the planned future residential use, these locations should be restricted in use and / or capped (i.e., paved) if possible. If restricted use and / or capping of the shed locations are not planned / possible, then additional investigation of the shed locations may be warranted. Alternatively, "pre-emptive" remediation may be warranted (i.e., removal of surface soil in specific locations of potential concern).

Lead paint may have been used to paint the exterior surface of the existing single family residence in the past; given the intended future use (residential), this is a Business Environmental Risk and additional investigation may be warranted.

The subject property was formally used for agricultural purposes (orchards), and given the intended future use (residential) and widespread nature of the former agricultural use (orchards formally covered most of the subject property); this was determined to be a REC. Additional investigation regarding former agricultural use is warranted and recommended.

SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The conclusions of this report are based solely on the Scope of Services outlined and the referenced sources of information. Any additional information that becomes available concerning this report should be submitted to Consulting Engineers Corp. so that our conclusions may be reviewed and modified, if necessary. No soil, groundwater, vapor, or building material samples were collected or analyzed as part of this investigation. This report was prepared in July 2012 for the sole use of Duc Development Company LLC and/or their agents.

Prepared by:



Benjamin Berman
Project Manager

As per ASTM E 1527-05 Section 12.13, we declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Reviewed by:



Sako K. Noravian
Principal

REFERENCES

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California Department of Conservation, California Geological Survey, 2002. California Geomorphic Provinces. Note 36.

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California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). 2007. Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, INTERIM FINAL – November 2007 (Revised May 2008).

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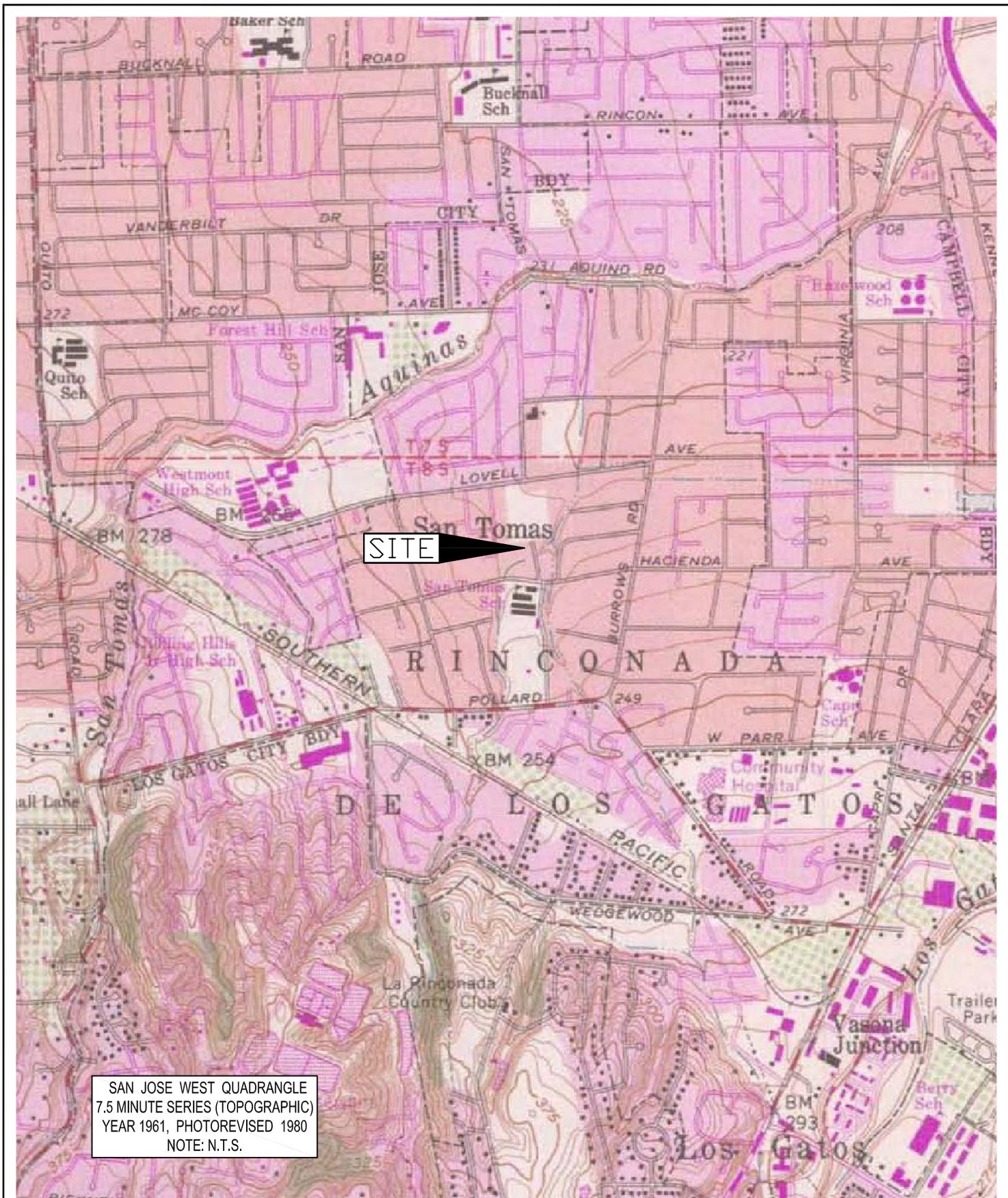
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Santa Clara Valley Water District (SCVWD). January 7, 1991. Case Closure Recommendation for Clemente Tobacco, 1181 Abbott Avenue, Campbell.

California Regional Water Quality Control Board (RWQCB). January 15, 1991. No Further Action Letter signed by Steven R. Ritchie.

□ I □ RES



SITE LOCATION & VICINITY

CONSULTING ENGINEERS CORPORATION
 3016 SCOTT BOULEVARD
 SANTA CLARA, CA 95054
 (408) 327 - 5700

PHASE I ENVIRONMENTAL SITE ASSESSMENT
 1181 ABBOTT AVENUE
 CAMPBELL, CALIFORNIA

FILENAME:	3128
DATE:	JULY 2012
CHECK BY:	BB
DRAWN:	BB

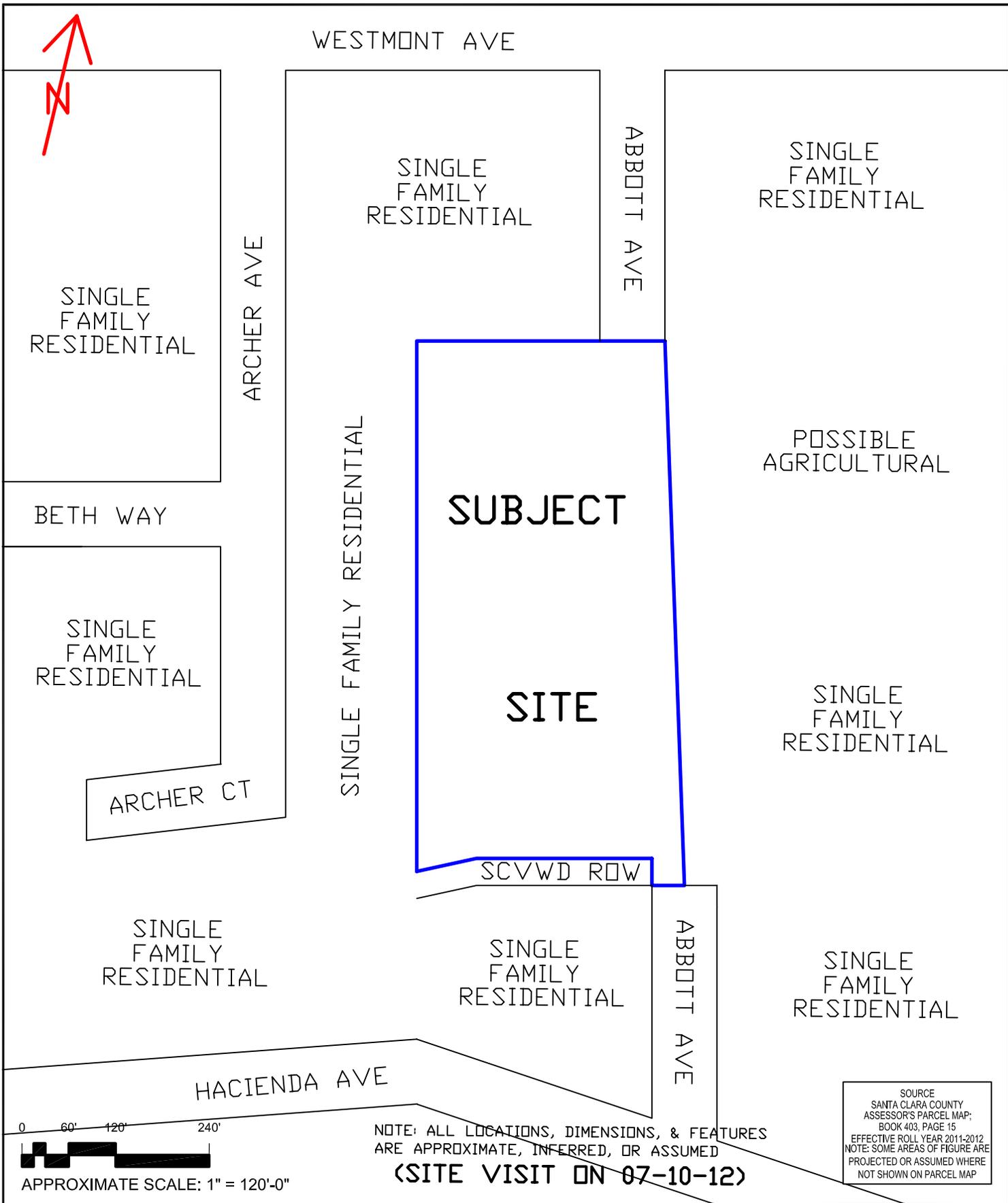
FIGURE:
 1



SOURCE
 GOOGLE EARTH IMAGE
 OBTAINED FROM THE
 INTERNET ON
 JUNE 27, 2012
 NOTE: NOT TO SCALE
 NORTH ARROW APPROXIMATE

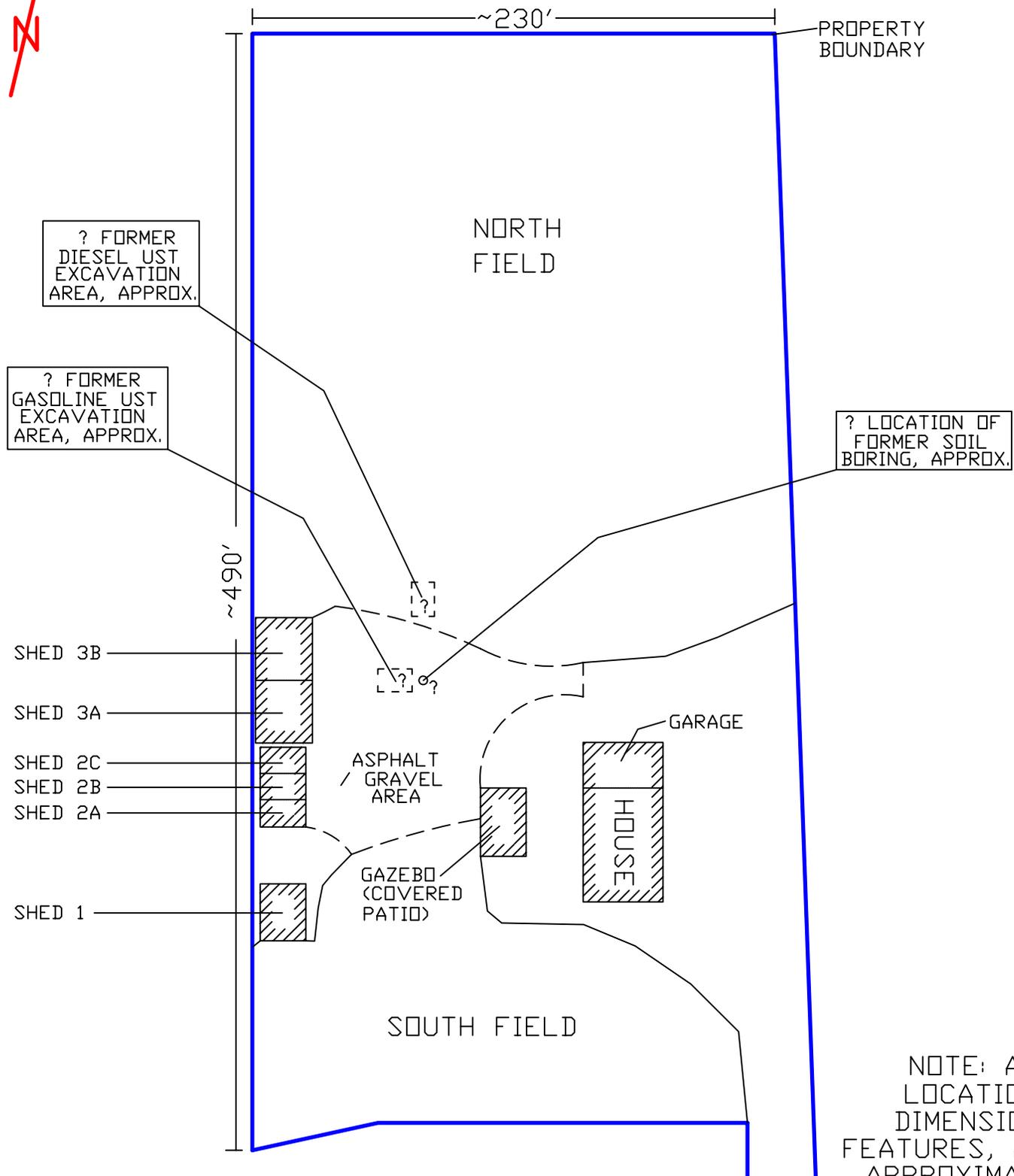
SUBJECT SITE AND ADJACENT PROPERTIES (GOOGLE EARTH IMAGE)

CONSULTING ENGINEERS CORPORATION 3016 SCOTT BOULEVARD SANTA CLARA, CA 95054 (408) 327 - 5700	PHASE I ENVIRONMENTAL SITE ASSESSMENT 1181 ABBOTT AVENUE CAMPBELL, CALIFORNIA	FILENAME: 3128 DATE: JULY 2012 CHECK BY: BB DRAWN: BB	FIGURE: 2
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SUBJECT SITE AND ADJACENT PROPERTIES (SITES LABELED)

CONSULTING ENGINEERS CORPORATION 3016 SCOTT BOULEVARD SANTA CLARA, CA 95054 (408) 327 - 5700	PHASE I ENVIRONMENTAL SITE ASSESSMENT 1181 ABBOTT AVENUE CAMPBELL, CALIFORNIA	FILENAME: 3128	FIGURE: 3
		DATE: JULY 2012	
		CHECK BY: BB	
		DRAWN: BB	



NOTE: ALL LOCATIONS, DIMENSIONS, FEATURES, ARE APPROXIMATE, INFERRED, OR ASSUMED

(SITE VISIT ON 07-10-12)

SUBJECT SITE FEATURES

CONSULTING ENGINEERS CORPORATION 3016 SCOTT BOULEVARD SANTA CLARA, CA 95054 (408) 327 - 5700	PHASE I ENVIRONMENTAL SITE ASSESSMENT 1181 ABBOTT AVENUE CAMPBELL, CALIFORNIA	FILENAME: 3128	FIGURE: 4
		DATE: JULY 2012	
		CHECK BY: BB	
		DRAWN: BB	

APPENDIX A

SITE PHOTOGRAPHS



Photo 1, Exterior grounds, subject property, looking north from south property boundary, south field in foreground, gazebo on right, sheds on left.



Photo 2, Exterior grounds, subject property, looking south from north property boundary, north field in foreground, sheds on right, house on left.



Photo 3, Exterior, front of house on subject property, looking southwest, garage on right.



Photo 4, Exterior, back of house on subject property, looking southeast, gazebo on right (not shown).



Photo 5, Interior, house on subject property, family room, facing towards garage.



Photo 6, Interior, house on subject property, garage, facing towards front, family room on right.



Photo 7, Exterior of gazebo behind the house, facing southwest.



Photo 8, Inside of gazebo behind the house.



Photo 9, Exterior of sheds, facing northwest, Shed 1 on left, Shed 2 at center, Shed 3 on right.



Photo 10, Exterior of Shed 1, looking southerly, door on north side of shed behind wood pile (on right).



Photo 11, Interior of Shed 1, looking south, typical.



Photo 12, Exterior of Shed 2, looking west, Shed 2A on left, Shed 2B at center, Shed 2C on right.



Photo 13, Interior of Shed 2A, looking west, typical.



Photo 14, Interior of Shed 2B, looking west, typical; empty 5-gal. metal gas can in back corner (left)



Photo 15, Interior of Shed 2C, looking west, typical.



Photo 16, Exterior of Shed 3, looking west, Shed 3A on left (pile of garbage on left outside and inside Shed 3A), Shed 3B on right.



Photo 17, Interior of Shed 3A looking southwest, bags of trash on right, work bench at back.



Photo 18, Interior of Shed 3B looking southwest, pile of tires at back.

APPENDIX B

STATEMENT OF ALI ATIONS

Consulting Engineers Corporation

ALIATIONS PERSONNEL

SAO NORA IAN PRINCIPAL

REGISTRATIONS/CERTIFICATIONS:

Certified Professional Structural Engineer—#1913-0306
Registered Professional Engineer, Civil—California #21294
Registered Professional Engineer—Nevada #4746
Registered Professional Engineer—Oregon #10232
Registered Professional Engineer— Washington #17812
Registered Environmental Assessor—California #1320

EDUCATION:

San Jose State University: M.S. Structural Engineering, 1968
California Polytechnic University; B.S., Civil Engineering & Architecture, 1963

PROFESSIONAL HISTORY:

E2C, Inc, Santa Clara, CA, Principal, 1970-January 2012
Consulting Engineers Corporation, Santa Clara, CA, Principal, February 2012-Present

BENAMIN BERMAN PROJECT MANAGER

REGISTRATIONS / CERTIFICATIONS / TRAINING:

Registered Environmental Assessor—California #08222
AHERA Accredited Asbestos Building Inspector, Certification #197011
EDR Seminar, Vapor Intrusion Risk & Due Diligence Challenges, 12-6-06, Berkeley, CA
EPA / DTSC Educational Workshop, AAI and New Phase I ESA Requirements, 1-25-07, Sacramento, CA
ASTM International Technical & Professional Training, Assessment of Vapor Intrusion Into Structures on Property Involved in Real Estate Transactions, 6-11-08, San Francisco, CA
EDR Seminar, Due Diligence, Challenges, Updates, 10-8-08, San Francisco, CA
EDR Environmental Due Diligence 101, 6 week online training course, September-October 2009
NCC-AHMP, 3-day Essentials of Hazardous Materials Management Overview Course, November 8 – 10, 2011, Oakland, CA

EDUCATION:

San Jose State University: B.A. Environmental Studies, 2000

PROFESSIONAL HISTORY:

Consulting Engineers Corporation, Santa Clara, CA, Project Manager, February 2012-Present
E₂C, Inc, Santa Clara, CA, Project Manager, 2002-January 2012
Santa Clara Valley Water District, San Jose, CA, Leaking Underground Storage Tank Oversight Program, Case Manager, 2001-2002
CET Environmental Services, Inc., Richmond, CA, Staff Scientist, 1993-1997
Aqua Terra Technologies, Inc., Walnut Creek, CA, Staff Scientist, 1988-1993

ALIATIONS PERSONNEL
E continued

MATT REENMAER STAFF STRUCTURAL ENGINEER

REGISTRATIONS / CERTIFICATIONS / TRAINING:

Engineering In Training (E.I.T.), Certificate No. 133026, July 31, 2008

EDUCATION:

Santa Clara University: B.S. Civil Engineering (focus in Structural Engineering), 2008

PROFESSIONAL HISTORY:

Quilici Engineers, Campbell, CA, Engineering Intern, Summer 2006 and Summer 2007

E₂C, Inc, Santa Clara, CA, Staff Structural Engineer, July 2008 to January 2012

Consulting Engineers Corporation, Santa Clara, CA, Staff Structural Engineer, February 2012 to Present

3016 Scott Blvd Santa Clara CA 95054

(408) 327-5700

EXHIBIT 3

PHASE II ENVIRONMENTAL SITE ASSESSMENT

PHASE II ENVIRONMENTAL SITE ASSESSMENT
ABBOTT RESIDENTIAL
1181 ABBOTT AVENUE
CAMPBELL, CALIFORNIA

FOR
DUC DEVELOPMENT
February 27, 2013

Job No. 3450.901

Via E-mail and Mail

February 27, 2013
Job No. 3450.901

**BERLOGAR
STEVENS &
ASSOCIATES**

Mr. Al Barnett
Duc Development
890 Saratoga Avenue, Suite 201
San Jose, California 95129

Subject: Phase II Environmental Site Assessment
Abbott Residential
1181 Abbott Avenue
Campbell, California

Dear Mr. Barnett:

Berlogar Stevens & Associates has completed a Phase 2 Environmental Site Assessment (ESA) for the subject site located at 1181 Abbott Avenue, Campbell, California (see Plate 1, Vicinity Map). The work plan for this Phase 1 ESA was developed from information collected for the Property and the Consulting Engineers Corporation (CEC) Phase I Environmental Site Assessment (ESA) dated July 31, 2012 performed for the Property. The purpose of the Phase 2 ESA is to address the CEC ESA recommendations for:

1. Soil sampling and testing for pesticides due to the site's former use as an orchard.
2. Soil sampling and testing and soil vapor sampling and analysis at the former underground storage tank (UST) and existing storage shed locations.

This Phase 2 ESA does not address potential lead-based paint or asbestos containing building materials issues that may have been utilized for the existing residence. Qualified contractors will address the presence and management of these materials during the demolition phase of work.

1.0 SUMMARY OF PREVIOUS INVESTIGATIONS AT 1181 ABBOTT AVENUE

Underground Storage Tank Removals and Investigation

The Property at 1181 Abbott Avenue in Campbell was a farm with a residence. Three underground storage tanks (USTs) were used on-site: one 350-gallon gasoline, one 550-gallon gasoline and one 1,000-gallon diesel for farm and personal vehicle use. The tanks were removed in April 1988 and soil samples collected by Blaine Tech, Inc. showed some residual petroleum contaminants. Soil was excavated from the tank excavations and a second sampling round of the excavation extremities and soil stockpile showed contaminants below the reporting limit.

Onsite Technologies Soil Sampling Study

Onsite Technologies drilled one exploratory boring to ascertain the presence of groundwater in October 1988. Onsite collected soil samples at five-foot intervals between depths of 20 to 51 feet for analysis. The borings did not encounter groundwater. The soil samples analyzed from the Onsite boring showed that Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene and Xylenes were not detected.

Site Closure Documents

The data collected from these investigations was forwarded to the Regional Water Quality Control Board (RWQCB) for their review. RWQCB staff concluded that further investigation and cleanup for fuel hydrocarbons was not necessary and the Santa Clara Valley Water District prepared a case closure summary dated January 7, 1991 (see References).

Twenty-four soil sampling locations (20 hand auger borings and 4 soil vapor sampling points) are shown on Plate 2, Site Plan. A safety plan and utility clearance were performed prior to doing the fieldwork. Our scope of services for this Phase 2 ESA included the following.

1. Obtaining 9 samples from site in the former fields (PS1 through PS9). The samples were collected in the upper foot and tested for Organochlorine pesticides. Samples PS1 through PS5 were collected by BSA in a previous study, and the results were included in this Phase 2 ESA.
2. Obtaining 6 samples from the site beneath the three existing sheds (SS1 through SS8). The samples were collected at depths of 6 to 12 inches and 18 to 24 inches and tested for Organochlorine pesticides, TPHG, TPHD, TPHMO, BTEX, MTBE and fuel oxygenates. Samples SS1 and SS2 were collected by BSA in a previous study, and the results were included in this Phase 2 ESA
3. Installing 4 vapor wells, 2 in the area of the former UST locations and 2 in the area of the existing sheds. Vapor samples were collected and analyzed for volatile compounds using Method TO-17 with diesel and naphthalene. The vapor wells were removed per Santa Clara Valley Water District guidance.
4. The results of the soil sample tests (from the hand auger borings) in the area of the former USTs (D UST and G UST 1 and 2) performed previously by BSA are included in this report.

3.0 SOIL SAMPLING AND SOIL VAPOR SAMPLING PROCEDURES

Soil Sampling - The boreholes were drilled with hand auger drilling equipment and continuously logged. All drilling equipment and sampling tools were cleaned prior to arriving, between each location and before leaving the site. When soil samples were collected for analyses, the soil sampler with clean liners was advanced and the sampler was retrieved and disassembled. The soil was removed and placed in sterile, glass jars and filled to the top to reduce air space, labeled, logged onto chain-of-custody forms and placed in a chilled ice chest on crushed ice. Drill cuttings, cleanup and decontamination water, and used materials were contained in labeled, closed top drum and left near the existing shed location. Upon completion of drilling, the boreholes were backfilled with compacted cuttings, placed from the bottom to top of the borehole.

Soil Logging -The boreholes were logged using the Unified Soil Classification System under the supervision of a professional geologist. Lithologic information was collected to describe the subsurface geology and soil colors were noted using Munsell Soil Color charts. The soil samples

were collected continuously to log lithology and note intervals of possible soil staining or obvious contamination and at stratigraphic features of interest.

Soil Vapor Sampling - Four exploratory borings were sampled by SVC Environmental, Inc. using soil vapor sampling well points. The soil vapor samples were collected at a depth of 5 feet. Soil vapor borehole drilling used similar hand auger drilling procedures noted above and SVC maintained field notes of vapor sampling.

SVC used current DTSC guidance for soil vapor sample collection. Each borehole was advanced to the desired depth and temporarily cased for soil vapor sampling. The soil vapor boring was purged before sampling in order to remove stagnant or ambient air and checked for leaks. Soil vapor sampling was performed by connecting the well or probe to be sampled to the extraction device to purge the tube. A site-specific purge volume versus contaminant concentration test was conducted initially. This test was performed at the test point where the contaminant concentrations were suspected to be the highest. The purge volume was estimated based on summation of the volume of the sample container, internal volume of tubing used, and annular space around the probe tip. A step purge test of one, three, and seven purge volumes were conducted to determine the purge volume to be used at all sampling points. If no contaminants are detected during the step purge test, three purge volumes were extracted prior to sampling at each location. A leak test was conducted at every soil gas probe in order to prevent sample dilution with ambient air. A leak check compound was placed where ambient air could enter the sampling system (sample system connection, surface bentonite seal, and top of the temporary soil gas probe).

The sample probe consists of a probe tip and tubing (1/8 to 1/4 inch diameter) that extended from the probe tip to the ground surface. The sample probe and tubing were constructed of material that will not react or interact with the target compounds. The tubing was marked at the surface to identify the probe location and depth. The probe tip was placed midway between the top and bottom of the one-foot thick sampling interval, with a sand (or 60-100 sieve glass bead) pack extending approximately 6 inches above and below the probe tip. At least 1 foot of dry granular bentonite was placed on top of the sand and then hydrated with clean water. The remainder of the annulus was filled with hydrated bentonite pellets or lean cement grout.

Sampling and purging flow rate were selected so compound partitioning was not enhanced during soil gas sampling. A vacuum device (gas tight syringe) was used between the soil gas sample tubing and the soil gas extraction device (vacuum pump, Summa canister) to qualitatively determine if a high vacuum (no-flow or low-flow) soil condition was present. Purging/sampling were conducted at low flow rates between 100 to 200 milliliters per minute (ml/min). The purge/sample rate was modified based on conditions encountered in individual soil gas probes. Summa canisters were prepared by the laboratory and shipped to SVC. A flow regulator was placed between the probe and the canister to ensure that the canister is filled at the low flow rate as specified above. Upon completion of the collection of soil vapor samples, the probe was withdrawn and boreholes were backfilled with cement grout placed from the bottom to top of each borehole.

One (1) trip blank was collected and analyzed for target compounds. Trip blanks, consisting of laboratory grade ultra pure air, were prepared to evaluate if the shipping and handling procedures

were introducing contaminants into the samples and analyzed if quality problems were suspected. A duplicate soil vapor sample was not collected.

4.0 SITE CONCEPTUAL MODEL

The Property is located in the south-central portion of Santa Clara Valley, bounded by the Diablo Range to the east and Santa Cruz and Gabilan Ranges on the west. The Santa Clara Valley is a large structural depression that is filled with over 2,000 feet of alluvium. The Valley is bounded by active faults that generate damaging earthquakes. The Property region is underlain by Late Pleistocene alluvium consisting of irregularly bedded clay, silt, sand and gravel (Helley et al. 1979).

Groundwater occurs in the northern Santa Clara Groundwater Basin in large aquifers at depths of 150 feet and deeper and provides water for drinking, agricultural and industrial use. Regional groundwater flow is northerly toward the San Francisco Bay. Groundwater is estimated to occur at depths over 75 feet in the Property area. One boring drilled by Onsite technologies in 1988 near the former UST locations to a depth of 51 feet on the Property did not encounter groundwater.

Interbedded gravelly silt and clayey silt with gravel underlies the Property to depths of about 51 feet below surface grade (Onsite boring log, 1988). Shallow soil sampling performed by BSA to depths of 5 feet revealed similar soil types. Field indications of contaminants (staining and odor) were not observed in any sample hole.

5.0 SOIL AND SOIL VAPOR CHEMICAL ANALYSIS

Soil samples were individually analyzed at Test America Analytical, Inc., in Pleasanton and Eurofins Air Toxics, Inc. in Sacramento, both State-certified analytical laboratories, as listed below. Soil analyses were performed on a “normal” 5-day and soil vapor analyses on a “rush” turnaround basis. The results are summarized in Tables 1, 2, 3 and 4 together with the laboratory analytical reports (see appendices). No quality control problems were noted in the analyses.

1. Soil samples were tested from the former orchard area (PS-1 through PS-9) for Organochlorine pesticides by EPA Method 8081A/8082.
2. Soil samples from the existing sheds (SS1 through SS8) were analyzed for Organochlorine pesticides, Total Petroleum Hydrocarbons as Gasoline, Diesel and Motor Oil (TPHG, TPHD, TPHMO) using EPA Method 8015m and for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), Methyl-tert-Butyl-Ether MTBE and related fuel oxygenates using EPA Method 8260A.
3. Soil samples (GUST 1 and 2 and DUST) from the former gasoline and diesel UST area were analyzed for 8260B/CA LUFTMS Gasoline Range Organics and 8015B – Diesel Range Organics.
4. Four soil vapor samples were individually analyzed (V1 through V4). The soil vapor samples collected in the Summa canisters were analyzed using EPA Method TO-17

GC/MS, for Volatile Organic Compounds with Diesel and Naphthalene using a detection limit of 0.5 ppbv.

6.0 SAMPLE ANALYSES RESULTS AND DISCUSSION

The test results of BSA's sampling for January 22 and February 14, 2013, and the TestAmerica laboratory test reports are attached in the appendices. A brief review of the data is presented using look-up tables developed by the San Francisco Bay Area Regional Water Quality Control Board (RWQCB), Risk-based Screening Environmental Screening Levels (ESLs) Interim Final - November 2007, revised May 2008. Note that these ESL values listed in the tables are not site-specific cleanup levels; ESLs are guidance for Tier One Look-up Tables for Tier 1 site risk assessment and ground water protection. We used Table A for Environmental Screening Levels Shallow Soils (≤ 3 m bgs) and Table E-2 for Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns Lowest Residential. Using these tables is appropriate for a conservative comparison of values given the possible future residential land use.

BSA Shallow Soil Sampling January 22, 2013

Samples PS-1 through PS-5 contained detectable amounts of DDT and DDE; however, the detected amounts are below Environmental Screening Levels for residential land use. Sample PS-3 was found to have 0.0048 mg/kg Dieldrin, but is below the residential ESL. The presence of these low levels of pesticides is attributed to the historic farming and orchard use. Low levels of similar pesticides are well documented in the Santa Clara Valley.

Sample SS-1 had detectable motor oil range organics of 90 ppm, which is below residential ESL. Samples SS-1 and DUST @ 3' contained trace amounts of TPH Diesel, which were below the Environmental Screening Levels for residential land use. The previous work at the USTs was reviewed and the case "closed" by SCVWD on January 7, 1991 (see References). Low levels of TPH compounds in these samples are attributed to historic vehicle use in the parking area and near the sheds and former USTs.

BSA Shallow Soil and Soil Vapor Sampling February 14 and 21, 2013

Samples PS6 through PS8 in the open fields showed detections of DDD, DDE and DDT at very low concentrations, all below the ESL guidance. These very low levels of residual agricultural pesticides are present assumed due to the historic orchard use. These compounds typically penetrate soils to shallow depths and degrade very slowly and "legacy" pesticides are known to occur in the Santa Clara Valley from historic agricultural land use.

Samples SS-3 through SS-8 in the sheds showed two very low detections of pesticide DDE/DDD and for TPHD. The sheds appeared to have been used for farm vehicle, tool and related material storage. Pesticides might have been stored in the sheds or from an agricultural use prior to shed construction. The TPHD is attributed to fuel used for farm vehicles or equipment.

Soil vapor samples V-1 through V-4 showed that several compounds were detected but all were below the current ESL guidance (see Table 4). Samples V-2 and V-3 showed no detections of any compound and TPHD was not detected in any sample. The presence of detected compounds is attributed to historic fuel storage and vehicle use and/or maintenance in the yard area or the sheds.

7.0 CONCLUSIONS AND RECOMMENDATIONS

BSA has performed soil and soil vapor sampling and analyses at the 1181 Abbott Avenue Property. This work was conducted to address the Consulting Engineers Corporation (CEC) Phase I Environmental Site Assessment (ESA) dated July 31, 2012 in the agricultural field and UST and shed areas. The results of the January 22, 2013 analyses show very low detections of historic pesticides attributed to previous farming/orchard use. The TPHD is attributed to the former UST and vehicle use on the property.

Other areas noted in the CEC ESA for potential pesticide and vehicle fuel contaminants were sampled February 14 and 21, 2013. The shallow soil and soil vapor sampling shows that only very low detections of pesticides and TPHD are present. Soil vapor showed that the detected compounds were all below the current ESL guidance. The previous USTs have been removed and a previous soil boring showed that contaminants were not detected. The reviewing agencies determined that further work was not warranted and closed the USTs site in 1988.

On the basis of the data collected and chemical analyses it is our opinion that the CEC concerns for historic fuel and pesticide use on the property has been addressed. The few soil pesticide, TPH and soil vapor concentrations detected are below the current ESL guidance, and are residual levels from historic use. BSA concludes that further subsurface environmental work is not warranted at this time.

BSA recommends the following:

- The age of the buildings suggests that Lead-based paint (LBP) and Asbestos containing building materials (ACBM) may have been used in construction. If building renovation or demolition is planned, qualified contractors should assess the presence of these materials and if present, properly manage and dispose LBP and ACBM at an appropriate disposal facility.

LIMITATIONS

This report has been prepared specifically for the Abbott Residential property located at 1181 Abbott Avenue in Campbell, California, and was performed according to current state and local agency suggested guidance documents for these investigations. The interpretations, conclusions and recommendations made herein are based on the data and analysis for the specific soil samples collected on-site. Conditions of the property can change over time and the use of this report by third parties is entirely at their own risk.

The soil borings can only present information accurately in the area directly at the point of the boring. They give a general indication of the condition of the site, but will not serve as a basis for a guarantee of non-contamination of the site. The conclusions and professional opinions that will be presented are developed in accordance with generally accepted practice as outlined in the guidelines of the California Regional Water Quality Control Board and/or other agencies for soil and groundwater sampling.

The chemical analysis results are based on data collected at the sampling locations only, therefore Berlogar Stevens and Associates cannot have complete knowledge of the underlying conditions. Conditions at the project site will change with time due to natural processes or the works of man. Accordingly, the findings of this report will apply to the present conditions only; the opinions expressed therein are subject to revisions in light of new information, and no warranties are expressed or implied.

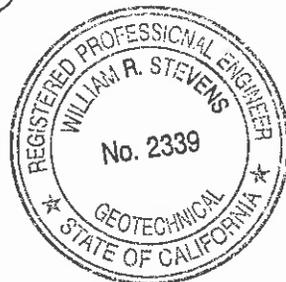
This report has been prepared for use solely by our Client and the City of Campbell. This report shall not be relied upon by or transferred to any other party, or used for any other purpose, without the express written authorization by Duc Development. We are not responsible for errors in laboratory analysis and reporting, or for information not available, nor unreported or unknown sources of site contamination during the course of the study, and no warranty or guarantee is expressed or implied therein.

We trust this provides the necessary information at this time. If you have any questions, please contact Bill Stevens at (925) 484-0220.

Respectfully Submitted,

BERLOGAR STEVENS & ASSOCIATES


William R. Stevens
Principal Engineer
GE 2339



CP/WRS:jmo

Attachments:

References

Plate 1 – Vicinity Map

Plate 2 – Site Plan

Table 1 – Summary of Detectable Analytical Test Results – Agricultural Fields

Table 2 – Summary of Detectable Analytical Test Results – Existing Shed Areas

Table 3 – Summary of Detectable Analytical Test Results – Former UST Areas

Table 4 – Summary of Soil Vapor Test Results

Appendix A – Eurofins Air Toxics Vapor Laboratory Report, 2/25/13

Appendix B – Eurofins Air Toxics Vapor Laboratory Report, 2/26/13

Appendix C – TestAmerica Analytical Report, 1/24/13

Appendix D – TestAmerica analytical Report, 2/22/13

Copies: Addressee (2)
City of Campbell, Daniel Fama (email only)

U\@@@Public\1-Pleasanton\3450-DUC Abbott\901-Sampling2\Phase_2_Soil Sampling and Vapor_Abbott_25350 docx

REFERENCES

Berlogar Stevens & Associates, Soil Sampling and Analytical Testing, Abbott Residential for Duc Development, letter report dated January 25, 2013.

Blaine Tech Services, Inc. report for McKee's Tractor Service 535 S. Cypress San Jose, CA 95117, Site: Clement Tobacco, 1181 Abbott Avenue, Campbell, California, Project Removal of Underground Storage Tanks, Sampled on September 8, 1998.

Consulting Engineers Corp. Phase I Environmental Site Assessment, 1881 Abbott Avenue, Campbell, dated July 31, 2012, prepared for Duc Development Company LLC, 890 Saratoga Avenue, Suite 201, San Jose, CA 95129, CEC Project Number 3128.

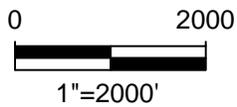
Helley E. J., LaJoie, K. A, Spangle, W. E. and Blair, M. L., 1979, Flatland deposits of the San Francisco Bay Region, California – their geology and engineering properties, and their importance to comprehensive planning: U. S. Geological Survey Professional Paper 943, USGPO, Washington, D. C.

Onsite Technologies, report dated November 4, 1988 for Clemente Tabacco, 1181 Abbott Avenue, Campbell, CA 95008, Subject: Report of Soil Investigation-Soil Sampling and Analyses.

San Francisco Bay Region Regional Water Quality Control Board, letter dated January 15, 1991 UST File (PLS), Clemente Tabacco 1181 Abbott Avenue Campbell, CA 95008 Re: Clemente Tabacco, 1181 Abbott Avenue, Campbell, Santa Clara County Site Code: 48F (Case Closure for Site Code 48F – Clemente Tabacco).

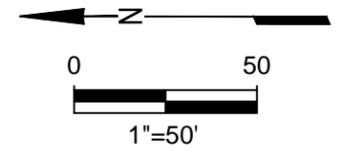
State of California, San Francisco Regional Water Quality Control Board, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater: volume I Tier I Look Up Tables, Interim Final Draft, November 2007, revised May 2008.

JOB NUMBER: 3450.901 DATE: 2-13-13 BY: CC



VICINITY MAP
ABBOTT RESIDENTIAL
 1161 ABBOTT AVENUE
 CAMPBELL, CALIFORNIA
 FOR
 DUC DEVELOPMENT

CHECKED BY:
DRAWN BY: CC
DATE: 2-13-13
JOB NUMBER: 3450.901



EXPLANATION

-  PROJECT BOUNDARY
-  G UST 2
D UST
HAND AUGER
LOCATIONS FOR
UST'S
-  PS-9
SURFICIAL SAMPLE
LOCATIONS FOR
AGRICULTURAL
FIELDS
-  SS-8
SURFACE SAMPLE
LOCATIONS FOR
STORAGE SHEDS
-  V-4
VAPOR WELL
LOCATIONS

SITE PLAN
ABBOTT RESIDENTIAL
1161 ABBOTT AVENUE
CAMPBELL, CALIFORNIA
FOR
DUC DEVELOPMENT

Berlogar Stevens & Associates
SOIL ENGINEERS * ENGINEERING GEOLOGISTS

Table 1 - Summary of Detectable Analytical Test Results - Agricultural Fields

DETECTABLE COMPOUNDS	SFRWQCB (mg/kg) Residential Land Use Final ESL (a)	PS-1 Sampled 1/22/13 (mg/kg)	PS-2 Sampled 1/22/13 (mg/kg)	PS-3 Sampled 1/22/13 (mg/kg)	PS-4 Sampled 1/22/13 (mg/kg)	PS-5 Sampled 1/22/13 (mg/kg)	PS-6 Sampled 2/14/13 (mg/kg)	PS-7 Sampled 2/14/13 (mg/kg)	PS-8 Sampled 2/14/13 (mg/kg)	PS-9 Sampled 2/14/13 (mg/kg)
ORGANOCHLORINE PESTICIDES, EPA 8081A										
Dieldrin	0.023	ND	ND	0.0048	ND	ND	ND	ND	ND	ND
4,4'-DDT	1.7	0.015	0.012	0.0044	0.0045	0.0037	ND	ND	0.0070	0.034
4,4'-DDE	1.7	0.018	0.025	0.014	0.017	0.012	ND	ND	0.110	0.088
4,4'-DDD	2.4	ND	0.015	0.0033						

NOTES:

(a) San Francisco Bay Regional Water Quality Control Board, Table A-1, Shallow Soil Screening Levels,
 Residential Land Use, Groundwater is Potential Drinking Water Resource, 11/07, Revised 5/08.

SFRWQCB - San Francisco Regional Water Quality Control Board

ESL - Environmental Screening Levels

ND - Not Detected at the Laboratory Reporting Limit.

-- Not Tested or No Established Limits.

See Test America Analytical Reports dated: 1/24/2013 and 2/18/13

Table 2 - Summary of Detectable Analytical Test Results - Existing Shed Areas

DETECTABLE COMPOUNDS	SFRWQCB (mg/kg) Residential Land Use Final ESL (a)	SS-1 Sampled 1/22/13 (mg/kg)	SS-2 Sampled 1/22/13 (mg/kg)	SS-3 Sampled 2/14/13 (mg/kg)	SS-4 Sampled 2/14/13 (mg/kg)	SS-5 Sampled 2/14/13 (mg/kg)	SS-6 Sampled 2/14/13 (mg/kg)	SS-7 Sampled 2/14/13 (mg/kg)	SS-8 Sampled 2/14/13 (mg/kg)
TPH, EPA 8260B									
Gasoline Range Organics (C5-C12)	83	ND							
BTEX Compounds	Varies	ND							
TPH, EPA 8015B									
Diesel Range Organics [C10-C28]	83	29	ND	ND	ND	1.9	1.1	ND	ND
Motor Oil Range Organics [C24-C36]	370	90	ND						
ORGANOCHLORINE PESTICIDES, EPA 8081A									
Dieldrin	0.023	--	--	ND	ND	ND	ND	ND	ND
4,4'-DDT	1.7	--	--	ND	ND	ND	ND	ND	ND
4,4'-DDE	1.7	--	--	0.0035	ND	ND	ND	ND	ND
4,4'-DDD	2.4	--	--	ND	ND	0.0033	ND	ND	ND

NOTES:

(a) San Francisco Bay Regional Water Quality Control Board, Table A-1, Shallow Soil Screening Levels,

Residential Land Use, Groundwater is a Current or Potential Drinking Water Resource, 11/07, Revised 5/08.

SFRWQCB - San Francisco Regional Water Quality Control Board

ESL - Environmental Screening Levels

ND - Not Detected at the Laboratory Reporting Limit.

-- Not Tested or No Established Limits.

See Test America Analytical Reports dated: 1/24/13 and 2/18/13

Table 3 - Summary of Detectable Analytical Test Results - Former UST Areas

SAMPLED: 1/22/13 DETECTABLE COMPOUNDS	SFRWQCB (mg/kg) Residential Land Use Final ESL (a)	G UST 4.5' (mg/kg)	G UST 2 2' (mg/kg)	D UST 3' (mg/kg)	D UST 8' (mg/kg)
TPH, EPA 8260B Gasoline Range Organics (C5-C12) BTEX Compounds	83 varies	ND ND	ND ND	-- --	-- --
TPH, EPA 8015B Diesel Range Organics (C10-C28) Motor Oil Range Organics (C24-C36)	83 370	-- --	-- --	17 ND	ND ND

NOTES:

(a) San Francisco Bay Regional Water Quality Control Board, Table A-1, Shallow Soil Screening Levels,
Residential Land Use, Groundwater is a Current or Potential Drinking Water Resource, 11/07, Revised 5/08.

SFRWQCB - San Francisco Regional Water Quality Control Board

ESL - Environmental Screening Level

ND - Not Detected at the Laboratory Reporting Limit.

-- Not Tested or No Established Limits.

See Test America Analytical Report dated: 1/24/13

Table 4 - Summary of Detectable Analytical Test Results - Soil Vapor

SAMPLED: 2/21/13 at a depth of 5 feet DETECTABLE COMPOUNDS, EPA TO-15	SFRWQCB ($\mu\text{g}/\text{m}^3$) Shallow Soil Gas Screening Levels Final ESL (a)	V-1 ($\mu\text{g}/\text{m}^3$)	V-2 ($\mu\text{g}/\text{m}^3$)	V-3 ($\mu\text{g}/\text{m}^3$)	V-4 ($\mu\text{g}/\text{m}^3$)
TPH as Diesel (b)	10,000	ND	ND	ND	ND
Tetrachloroethene	410	16	ND	ND	49
Benzene	84	ND	ND	ND	6.8
Toluene	63,000	ND	ND	ND	8.8
Acetone	660,000	ND	ND	ND	30
Carbon Disulfide	--	ND	ND	ND	31
Naphathlene	720	ND	ND	3.1	ND

NOTES:

(a) San Francisco Bay Regional Water Quality Control Board, Table E-2, Shallow Soil Gas Screening Levels, for Evaluation of Potential Vapor Intrusion Concerns, Lowest Residential ESL, 11/07, Revised 5/08.

(b) Used Environmental Screening Level for TPH for Middle Distillates

SFRWQCB - San Francisco Regional Water Quality Control Board

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

ESL - Environmental Screening Level

ND - Not Detected at the Laboratory Reporting Limit.

-- Not Tested or No Established Limits.

See Air Toxics Limited Report dated: 2/25/13

APPENDIX A

Eurofins Air Toxics Vapor Laboratory Report, 2/25/13

2/25/2013

Mr. Ross Tinline
SVC Environmental, Inc.
11 Kenton Ave

San Carlos CA 94070

Project Name: 1161 Abbott Ave, Campbell
Project #: BMA-01
Workorder #: 1302417

Dear Mr. Ross Tinline

The following report includes the data for the above referenced project for sample(s) received on 2/22/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Maria Barajas at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Maria Barajas
Project Manager

WORK ORDER #: 1302417

Work Order Summary

CLIENT: Mr. Ross Tinline
SVC Environmental, Inc.
11 Kenton Ave
San Carlos, CA 94070

BILL TO: Mr. Ross Tinline
SVC Environmental, Inc.
11 Kenton Ave
San Carlos, CA 94070

PHONE: 650-218-3766

P.O. #

FAX:

PROJECT # BMA-01 1161 Abbott Ave, Campbell

DATE RECEIVED: 02/22/2013

CONTACT: Maria Barajas

DATE COMPLETED: 02/25/2013

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	V-3	Modified TO-15	4.5 "Hg	15 psi
02A	V-2	Modified TO-15	4.5 "Hg	15 psi
03A	V-1	Modified TO-15	5.0 "Hg	15 psi
04A	V-4	Modified TO-15	4.0 "Hg	15 psi
05A(on hold)	Trip Blank	Modified TO-15	28.0 "Hg	15 psi
06A	Lab Blank	Modified TO-15	NA	NA
07A	CCV	Modified TO-15	NA	NA
08A	LCS	Modified TO-15	NA	NA
08AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 02/25/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
EPA Method TO-15
SVC Environmental, Inc.
Workorder# 1302417

Five 1 Liter Summa Canister samples were received on February 22, 2013. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Samples Trip Blank were placed on hold per the client's request.

Analytical Notes

Dilution was performed on sample V-3 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: V-3

Lab ID#: 1302417-01A

No Detections Were Found.

Client Sample ID: V-2

Lab ID#: 1302417-02A

No Detections Were Found.

Client Sample ID: V-1

Lab ID#: 1302417-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	1.2	2.3	8.2	16

Client Sample ID: V-4

Lab ID#: 1302417-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	2.1	3.7	6.8
Toluene	1.2	2.3	4.4	8.8
Tetrachloroethene	1.2	7.2	7.9	49
Acetone	12	12	28	30
Carbon Disulfide	4.7	10	14	31



Air Toxics

Client Sample ID: V-3

Lab ID#: 1302417-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022409	Date of Collection:	2/21/13 12:44:00 PM
Dil. Factor:	4.76	Date of Analysis:	2/24/13 04:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.4	Not Detected	12	Not Detected
Freon 114	2.4	Not Detected	17	Not Detected
Vinyl Chloride	2.4	Not Detected	6.1	Not Detected
Bromomethane	24	Not Detected	92	Not Detected
Chloroethane	9.5	Not Detected	25	Not Detected
Freon 11	2.4	Not Detected	13	Not Detected
1,1-Dichloroethene	2.4	Not Detected	9.4	Not Detected
Freon 113	2.4	Not Detected	18	Not Detected
Methylene Chloride	24	Not Detected	83	Not Detected
1,1-Dichloroethane	2.4	Not Detected	9.6	Not Detected
cis-1,2-Dichloroethene	2.4	Not Detected	9.4	Not Detected
Chloroform	2.4	Not Detected	12	Not Detected
1,1,1-Trichloroethane	2.4	Not Detected	13	Not Detected
Carbon Tetrachloride	2.4	Not Detected	15	Not Detected
Benzene	2.4	Not Detected	7.6	Not Detected
1,2-Dichloroethane	2.4	Not Detected	9.6	Not Detected
Trichloroethene	2.4	Not Detected	13	Not Detected
1,2-Dichloropropane	2.4	Not Detected	11	Not Detected
cis-1,3-Dichloropropene	2.4	Not Detected	11	Not Detected
Toluene	2.4	Not Detected	9.0	Not Detected
trans-1,3-Dichloropropene	2.4	Not Detected	11	Not Detected
1,1,2-Trichloroethane	2.4	Not Detected	13	Not Detected
Tetrachloroethene	2.4	Not Detected	16	Not Detected
1,2-Dibromoethane (EDB)	2.4	Not Detected	18	Not Detected
Chlorobenzene	2.4	Not Detected	11	Not Detected
Ethyl Benzene	2.4	Not Detected	10	Not Detected
m,p-Xylene	2.4	Not Detected	10	Not Detected
o-Xylene	2.4	Not Detected	10	Not Detected
Styrene	2.4	Not Detected	10	Not Detected
1,1,2,2-Tetrachloroethane	2.4	Not Detected	16	Not Detected
1,3,5-Trimethylbenzene	2.4	Not Detected	12	Not Detected
1,2,4-Trimethylbenzene	2.4	Not Detected	12	Not Detected
1,3-Dichlorobenzene	2.4	Not Detected	14	Not Detected
1,4-Dichlorobenzene	2.4	Not Detected	14	Not Detected
alpha-Chlorotoluene	2.4	Not Detected	12	Not Detected
1,2-Dichlorobenzene	2.4	Not Detected	14	Not Detected
1,3-Butadiene	2.4	Not Detected	5.3	Not Detected
Hexane	2.4	Not Detected	8.4	Not Detected
Cyclohexane	2.4	Not Detected	8.2	Not Detected
Heptane	2.4	Not Detected	9.8	Not Detected
Bromodichloromethane	2.4	Not Detected	16	Not Detected
Dibromochloromethane	2.4	Not Detected	20	Not Detected



Air Toxics

Client Sample ID: V-3

Lab ID#: 1302417-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022409	Date of Collection:	2/21/13 12:44:00 PM
Dil. Factor:	4.76	Date of Analysis:	2/24/13 04:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	2.4	Not Detected	12	Not Detected
Propylbenzene	2.4	Not Detected	12	Not Detected
Chloromethane	24	Not Detected	49	Not Detected
1,2,4-Trichlorobenzene	9.5	Not Detected	71	Not Detected
Hexachlorobutadiene	9.5	Not Detected	100	Not Detected
Acetone	24	Not Detected	56	Not Detected
Carbon Disulfide	9.5	Not Detected	30	Not Detected
2-Propanol	9.5	Not Detected	23	Not Detected
trans-1,2-Dichloroethene	2.4	Not Detected	9.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	9.5	Not Detected	28	Not Detected
Tetrahydrofuran	2.4	Not Detected	7.0	Not Detected
1,4-Dioxane	9.5	Not Detected	34	Not Detected
4-Methyl-2-pentanone	2.4	Not Detected	9.7	Not Detected
2-Hexanone	9.5	Not Detected	39	Not Detected
Bromoform	2.4	Not Detected	25	Not Detected
4-Ethyltoluene	2.4	Not Detected	12	Not Detected
Ethanol	9.5	Not Detected	18	Not Detected
Methyl tert-butyl ether	2.4	Not Detected	8.6	Not Detected
tert-Butyl alcohol	9.5	Not Detected	29	Not Detected
Ethyl-tert-butyl ether	9.5	Not Detected	40	Not Detected
Isopropyl ether	9.5	Not Detected	40	Not Detected
tert-Amyl methyl ether	9.5	Not Detected	40	Not Detected
3-Chloropropene	9.5	Not Detected	30	Not Detected
2,2,4-Trimethylpentane	2.4	Not Detected	11	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: V-2

Lab ID#: 1302417-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022406	Date of Collection:	2/21/13 1:38:00 PM
Dil. Factor:	2.38	Date of Analysis:	2/24/13 02:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Heptane	1.2	Not Detected	4.9	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected



Client Sample ID: V-2

Lab ID#: 1302417-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022406	Date of Collection:	2/21/13 1:38:00 PM
Dil. Factor:	2.38	Date of Analysis:	2/24/13 02:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.2	Not Detected	5.8	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
Acetone	12	Not Detected	28	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
2-Hexanone	4.8	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
Ethanol	4.8	Not Detected	9.0	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
tert-Butyl alcohol	4.8	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.8	Not Detected	20	Not Detected
Isopropyl ether	4.8	Not Detected	20	Not Detected
tert-Amyl methyl ether	4.8	Not Detected	20	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: V-1

Lab ID#: 1302417-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022407	Date of Collection:	2/21/13 2:09:00 PM
Dil. Factor:	2.42	Date of Analysis:	2/24/13 03:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	2.3	8.2	16
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected



Client Sample ID: V-1

Lab ID#: 1302417-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022407	Date of Collection:	2/21/13 2:09:00 PM
Dil. Factor:	2.42	Date of Analysis:	2/24/13 03:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.2	Not Detected	5.9	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Acetone	12	Not Detected	29	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
Ethanol	4.8	Not Detected	9.1	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
tert-Butyl alcohol	4.8	Not Detected	15	Not Detected
Ethyl-tert-butyl ether	4.8	Not Detected	20	Not Detected
Isopropyl ether	4.8	Not Detected	20	Not Detected
tert-Amyl methyl ether	4.8	Not Detected	20	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: V-4

Lab ID#: 1302417-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022408	Date of Collection:	2/21/13 2:58:00 PM
Dil. Factor:	2.33	Date of Analysis:	2/24/13 04:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	2.1	3.7	6.8
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	2.3	4.4	8.8
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	7.2	7.9	49
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected



Air Toxics

Client Sample ID: V-4

Lab ID#: 1302417-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022408	Date of Collection:	2/21/13 2:58:00 PM
Dil. Factor:	2.33	Date of Analysis:	2/24/13 04:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	12	12	28	30
Carbon Disulfide	4.7	10	14	31
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	19	Not Detected
Isopropyl ether	4.7	Not Detected	19	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	19	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1302417-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022405	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/24/13 01:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1302417-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022405	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/24/13 01:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1302417-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/24/13 11:40 AM

Compound	%Recovery
Freon 12	92
Freon 114	96
Vinyl Chloride	101
Bromomethane	100
Chloroethane	102
Freon 11	92
1,1-Dichloroethene	99
Freon 113	97
Methylene Chloride	95
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	107
Chloroform	97
1,1,1-Trichloroethane	96
Carbon Tetrachloride	94
Benzene	100
1,2-Dichloroethane	90
Trichloroethene	81
1,2-Dichloropropane	102
cis-1,3-Dichloropropene	102
Toluene	100
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	98
Tetrachloroethene	94
1,2-Dibromoethane (EDB)	98
Chlorobenzene	94
Ethyl Benzene	105
m,p-Xylene	109
o-Xylene	111
Styrene	115
1,1,2,2-Tetrachloroethane	111
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	101
1,3-Butadiene	98
Hexane	105
Cyclohexane	115
Heptane	111
Bromodichloromethane	93
Dibromochloromethane	98

Client Sample ID: CCV

Lab ID#: 1302417-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/24/13 11:40 AM

Compound	%Recovery
Cumene	110
Propylbenzene	105
Chloromethane	81
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	92
Acetone	101
Carbon Disulfide	96
2-Propanol	96
trans-1,2-Dichloroethene	103
2-Butanone (Methyl Ethyl Ketone)	101
Tetrahydrofuran	108
1,4-Dioxane	110
4-Methyl-2-pentanone	116
2-Hexanone	109
Bromoform	98
4-Ethyltoluene	109
Ethanol	91
Methyl tert-butyl ether	110
tert-Butyl alcohol	97
Ethyl-tert-butyl ether	113
Isopropyl ether	101
tert-Amyl methyl ether	110
3-Chloropropene	102
2,2,4-Trimethylpentane	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1302417-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/24/13 12:18 PM

Compound	%Recovery
Freon 12	90
Freon 114	95
Vinyl Chloride	100
Bromomethane	98
Chloroethane	97
Freon 11	88
1,1-Dichloroethene	102
Freon 113	94
Methylene Chloride	91
1,1-Dichloroethane	94
cis-1,2-Dichloroethene	103
Chloroform	94
1,1,1-Trichloroethane	93
Carbon Tetrachloride	90
Benzene	102
1,2-Dichloroethane	86
Trichloroethene	82
1,2-Dichloropropane	101
cis-1,3-Dichloropropene	103
Toluene	101
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	101
Tetrachloroethene	96
1,2-Dibromoethane (EDB)	100
Chlorobenzene	96
Ethyl Benzene	106
m,p-Xylene	110
o-Xylene	112
Styrene	114
1,1,2,2-Tetrachloroethane	116
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	103
1,2-Dichlorobenzene	106
1,3-Butadiene	94
Hexane	111
Cyclohexane	112
Heptane	111
Bromodichloromethane	92
Dibromochloromethane	97

Client Sample ID: LCS

Lab ID#: 1302417-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/24/13 12:18 PM

Compound	%Recovery
Cumene	112
Propylbenzene	108
Chloromethane	84
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	99
Acetone	100
Carbon Disulfide	116
2-Propanol	89
trans-1,2-Dichloroethene	112
2-Butanone (Methyl Ethyl Ketone)	99
Tetrahydrofuran	101
1,4-Dioxane	106
4-Methyl-2-pentanone	117
2-Hexanone	101
Bromoform	96
4-Ethyltoluene	106
Ethanol	71
Methyl tert-butyl ether	104
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	107
2,2,4-Trimethylpentane	109

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302417-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/24/13 12:53 PM

Compound	%Recovery
Freon 12	89
Freon 114	95
Vinyl Chloride	102
Bromomethane	98
Chloroethane	98
Freon 11	87
1,1-Dichloroethene	104
Freon 113	93
Methylene Chloride	92
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	107
Chloroform	94
1,1,1-Trichloroethane	93
Carbon Tetrachloride	89
Benzene	100
1,2-Dichloroethane	84
Trichloroethene	81
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	102
Toluene	98
trans-1,3-Dichloropropene	97
1,1,2-Trichloroethane	96
Tetrachloroethene	90
1,2-Dibromoethane (EDB)	96
Chlorobenzene	92
Ethyl Benzene	102
m,p-Xylene	107
o-Xylene	106
Styrene	108
1,1,2,2-Tetrachloroethane	111
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	105
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	100
1,3-Butadiene	96
Hexane	105
Cyclohexane	115
Heptane	110
Bromodichloromethane	90
Dibromochloromethane	92

Client Sample ID: LCSD

Lab ID#: 1302417-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/24/13 12:53 PM

Compound	%Recovery
Cumene	108
Propylbenzene	103
Chloromethane	87
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	94
Acetone	104
Carbon Disulfide	117
2-Propanol	92
trans-1,2-Dichloroethene	114
2-Butanone (Methyl Ethyl Ketone)	98
Tetrahydrofuran	102
1,4-Dioxane	106
4-Methyl-2-pentanone	111
2-Hexanone	98
Bromoform	91
4-Ethyltoluene	100
Ethanol	72
Methyl tert-butyl ether	106
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	108
2,2,4-Trimethylpentane	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	98	70-130



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
 Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
 FOLSOM, CA 95630-4719
 (916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Ross Tinline
 Collected by: (Print and Sign) Ross Tinline for 711
 Company SYC Environmental Email ross.tinline@sycear.com
 Address 11 Kenton Ave CIV San Carlos State CA Zip 94070
 Phone 650 218 3766 Fax 650 5907350

Project Info:
 P.O. # _____
 Project # BRMA-01
 Project Name 1161 Abbott Ave, Campbell
 Turn Around Time: Normal Rush
 Date: _____
 Pressurization Gas: N₂ He _____
 Lab Use Only: Pressurized by: _____

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt Final (g)	
01A	V-3	36521	2-21-13	1236-1244	TO15 for	29.42	-4.76		
02A	V-2	35661	2-21-13	1322-1338	VOC's incl.	28.39	-4.62		
03A	V-1	34571	2-21-13	1402-1409	Fuel oxygenates - 29.3		-4.78		
04A	V-4	15737	2-21-13	1451-1458	and TPHg.	29.29	-4.20		
05A	TriBlend	37312	2-21-13		Hold				
Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>1745</u>						Received by: (signature) <u>[Signature]</u> Date/Time <u>1745</u>	Notes: <u>2 prepared used for leak check compound.</u>		
Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>2-21-13</u>						Received by: (signature) <u>[Signature]</u> Date/Time <u>2-21-13 1015</u>			
Relinquished by: (signature) _____ Date/Time _____						Received by: (signature) _____ Date/Time _____			
Lab Use Only	Shipper Name <u>[Signature]</u>	Air Bill # _____	Temp (°C) <u>11.5</u>	Condition <u>Good</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	Work Order # <u>1302417</u>			

APPENDIX B

Eurofins Air Toxics Vapor Laboratory Report, 2/26/13

2/26/2013

Mr. Ross Tinline
SVC Environmental, Inc.
11 Kenton Ave

San Carlos CA 94070

Project Name: 1161 Abbott Ave Campbell
Project #: BMA-01
Workorder #: 1302398

Dear Mr. Ross Tinline

The following report includes the data for the above referenced project for sample(s) received on 2/22/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Maria Barajas at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Maria Barajas
Project Manager

WORK ORDER #: 1302398

Work Order Summary

CLIENT: Mr. Ross Tinline
SVC Environmental, Inc.
11 Kenton Ave
San Carlos, CA 94070

BILL TO: Mr. Ross Tinline
SVC Environmental, Inc.
11 Kenton Ave
San Carlos, CA 94070

PHONE: 650-218-3766

P.O. #

FAX:

PROJECT # BMA-01 1161 Abbott Ave Campbell

DATE RECEIVED: 02/22/2013

CONTACT: Maria Barajas

DATE COMPLETED: 02/26/2013

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	V-3	Modified TO-17 VI
02A	V-2	Modified TO-17 VI
03A	V-1	Modified TO-17 VI
04A	V-4	Modified TO-17 VI
05A	TB	Modified TO-17 VI
06A	Lab Blank	Modified TO-17 VI
06B	Lab Blank	Modified TO-17 VI
07A	CCV	Modified TO-17 VI
07B	CCV	Modified TO-17 VI
08A	LCS	Modified TO-17 VI
08AA	LCSD	Modified TO-17 VI
08B	LCS	Modified TO-17 VI
08BB	LCSD	Modified TO-17 VI

CERTIFIED BY: _____



Technical Director

DATE: 02/26/13 _____

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
SVC Environmental, Inc.
Workorder# 1302398

Five TO-17 VI Tube samples were received on February 22, 2013. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for further separation.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

<i>Requirement</i>	<i>TO-17</i>	<i>ATL Modifications</i>
Initial Calibration	%RSD$\leq 30\%$ with 2 allowed out up to 40%	VOC list: %RSD$\leq 30\%$ with 2 allowed out up to 40% SVOC list: %RSD$\leq 30\%$ with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 0.2 L was used to convert ng to ug/m³ for sample TB and the associated Lab Blanks.

The reported CCV for each daily batch may be derived from more than one analytical file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not

performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds EPA METHOD TO-17

Client Sample ID: V-3

Lab ID#: 1302398-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	0.62	3.1

Client Sample ID: V-2

Lab ID#: 1302398-02A

No Detections Were Found.

Client Sample ID: V-1

Lab ID#: 1302398-03A

No Detections Were Found.

Client Sample ID: V-4

Lab ID#: 1302398-04A

No Detections Were Found.

Client Sample ID: TB

Lab ID#: 1302398-05A

No Detections Were Found.



Air Toxics

Client Sample ID: V-3

Lab ID#: 1302398-01A

EPA METHOD TO-17

File Name:	f022211	Date of Extraction: N/A	Date of Collection: 2/21/13 1:01:00 PM
Dil. Factor:	1.00	Date of Analysis: 2/22/13 03:07 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	0.62	3.1
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	50-150
Toluene-d8	103	50-150
Naphthalene-d8	96	50-150

Client Sample ID: V-2

Lab ID#: 1302398-02A

EPA METHOD TO-17

File Name:	f022212	Date of Extraction: N/A	Date of Collection: 2/21/13 1:37:00 PM
Dil. Factor:	1.00	Date of Analysis: 2/22/13 03:48 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
 Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	50-150
Toluene-d8	84	50-150
Naphthalene-d8	80	50-150

Client Sample ID: V-1
 Lab ID#: 1302398-03A
 EPA METHOD TO-17

File Name:	f022213	Date of Extraction: N/A	Date of Collection: 2/21/13 2:24:00 PM
Dil. Factor:	1.00	Date of Analysis: 2/22/13 04:29 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
 Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	50-150
Toluene-d8	101	50-150
Naphthalene-d8	98	50-150



Air Toxics

Client Sample ID: V-4

Lab ID#: 1302398-04A

EPA METHOD TO-17

File Name:	f022214	Date of Extraction: N/A	Date of Collection: 2/21/13 3:07:00 PM
Dil. Factor:	1.00	Date of Analysis: 2/22/13 05:11 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	50-150
Toluene-d8	96	50-150
Naphthalene-d8	88	50-150



Air Toxics

Client Sample ID: TB

Lab ID#: 1302398-05A

EPA METHOD TO-17

File Name:	f022509	Date of Extraction: N/A	Date of Collection: 2/21/13 3:12:00 PM
Dil. Factor:	1.00	Date of Analysis: 2/25/13 03:30 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	50-150
Toluene-d8	86	50-150
Naphthalene-d8	89	50-150



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1302398-06A

EPA METHOD TO-17

File Name:	f022209	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/22/13 12:53 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	50-150
Toluene-d8	89	50-150
Naphthalene-d8	102	50-150



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1302398-06B

EPA METHOD TO-17

File Name:	f022508	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/13 01:36 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected
TPH (Diesel Range C10-C24)	1000	5000	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	50-150
Toluene-d8	79	50-150
Naphthalene-d8	78	50-150



Air Toxics

Client Sample ID: CCV

Lab ID#: 1302398-07A

EPA METHOD TO-17

File Name:	f022204	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/22/13 09:02 AM	

Compound	%Recovery
Naphthalene	94
TPH (Diesel Range C10-C24)	109

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	50-150
Toluene-d8	87	50-150
Naphthalene-d8	91	50-150



Air Toxics

Client Sample ID: CCV

Lab ID#: 1302398-07B

EPA METHOD TO-17

File Name:	f022505	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/13 11:32 AM	

Compound	%Recovery
Naphthalene	75
TPH (Diesel Range C10-C24)	125

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	50-150
Toluene-d8	73	50-150
Naphthalene-d8	65	50-150



Air Toxics

Client Sample ID: LCS

Lab ID#: 1302398-08A

EPA METHOD TO-17

File Name:	f022206	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/22/13 10:24 AM	

Compound	%Recovery
Naphthalene	99
TPH (Diesel Range C10-C24)	Not Spiked

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	50-150
Toluene-d8	94	50-150
Naphthalene-d8	89	50-150



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302398-08AA

EPA METHOD TO-17

File Name:	f022208	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/22/13 12:12 PM	

Compound	%Recovery
Naphthalene	94
TPH (Diesel Range C10-C24)	Not Spiked

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	50-150
Toluene-d8	78	50-150
Naphthalene-d8	77	50-150



Air Toxics

Client Sample ID: LCS

Lab ID#: 1302398-08B

EPA METHOD TO-17

File Name:	f022506	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/13 12:13 PM	

Compound	%Recovery
Naphthalene	85
TPH (Diesel Range C10-C24)	Not Spiked

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	50-150
Toluene-d8	84	50-150
Naphthalene-d8	82	50-150



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302398-08BB

EPA METHOD TO-17

File Name:	f022507	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/13 12:55 PM	

Compound	%Recovery
Naphthalene	96
TPH (Diesel Range C10-C24)	Not Spiked

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	50-150
Toluene-d8	82	50-150
Naphthalene-d8	76	50-150

TO-17 SAMPLE COLLECTION



CHAIN-OF-CUSTODY RECORD

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 FOLSOM, CA 95630
 (916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Ross Tinline
 Collected by: (Print and Sign) Ross Tinline
 Company SVC Environmental Email ross.t@svcenv.com
 Address 11 Keaton Ave City San Carlos State CA Zip 94070
 Phone 650 218 3766 Fax 650 590 7350

Project Info:
 PO. # _____
 Project # BMA-01
 Project Name 1161 Abbott Ave Campbell

Turn Around Time: Normal Rush
 Reporting Units: ppmv ppbv µg/m3 mg/m3
 2-DAY
 mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube #	Date of Collection (mm/dd/yy)	Start Time (hr : min)	End Time (hr : min)	Pre-Test Flow Rate	Post-Test Flow Rate	Volume	Indoor/Outdoor		Indoor Air	Outdoor Air	Soil Vapor	Other ()
									% RH	Temp				
D1A	V-3	60145520	2-21-13	1258	1301	-	66.6ml/min	200			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q1A	V-2	60143793	2-21-13	1334	1337	-	66.6ml/min	200			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q3A	V-1	60150981	2-21-13	1421	1424	-	66.6ml/min	200			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q1A	V-4	60143354	2-21-13	1504	1507	-	66.6ml/min	200			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q1A	TB	60153854	2-21-13	1511	1512	0	0	0			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Relinquished by: (signature) _____ Date/Time <u>1745</u> Received by: (signature) <u>Feder</u> Date/Time <u>2-21-13</u> Relinquished by: (signature) _____ Date/Time _____ Received by: (signature) _____ Date/Time <u>2/21/13</u> Relinquished by: (signature) _____ Date/Time _____ Received by: (signature) _____ Date/Time _____														
Notes: 50ml syringe utilized to withdraw 200ml over 3 minutes. Analyze for TPHd & Naphthalene.														
Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact	Yes	No	None	Work Order #					
	<u>[Signature]</u>		<u>5.0°C</u>	<u>Good</u>	<input checked="" type="checkbox"/>				<u>1302398</u>					

APPENDIX C

TestAmerica Analytical Report, 1/24/13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-47342-1
Client Project/Site: Abbott Residential

For:
Berlogar Geotechnical
5587 Sunol Boulevard
Pleasanton, California 94566

Attn: Ian Berkland



Authorized for release by:
1/24/2013 3:58:19 PM

Onieka Howard
Project Manager I
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F	RPD of the MS and MSD exceeds the control limits
B	Compound was found in the blank and sample.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Job ID: 720-47342-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-47342-1

Comments

No additional comments.

Receipt

The samples were received on 1/23/2013 9:27 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4° C.

GC/MS VOA

No analytical or quality issues were noted.

GC VOA

No analytical or quality issues were noted.

GC Semi VOA

Method(s) 8015B: The method blank for preparation batch 129270 contained C10-C28 above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

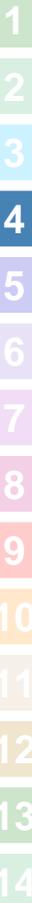
Method(s) 8015B: The method blank for preparation batch 129270 contained C10-C28 above the reporting limit (RL). The associated sample(s) contained detects for this analyte at concentrations greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed. 720-47342-6 & 720-47342-10.

Method(s) 8081A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 129269 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.



Detection Summary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS1

Lab Sample ID: 720-47342-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	15		2.0		ug/Kg	1		8081A	Total/NA
4,4'-DDE	18		2.0		ug/Kg	1		8081A	Total/NA

Client Sample ID: PS2

Lab Sample ID: 720-47342-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	12		2.0		ug/Kg	1		8081A	Total/NA
4,4'-DDE	25		2.0		ug/Kg	1		8081A	Total/NA

Client Sample ID: PS3

Lab Sample ID: 720-47342-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	4.8		1.9		ug/Kg	1		8081A	Total/NA
4,4'-DDT	4.4		1.9		ug/Kg	1		8081A	Total/NA
4,4'-DDE	14		1.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: PS4

Lab Sample ID: 720-47342-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	4.5		2.0		ug/Kg	1		8081A	Total/NA
4,4'-DDE	17		2.0		ug/Kg	1		8081A	Total/NA

Client Sample ID: PS5

Lab Sample ID: 720-47342-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	3.7		2.0		ug/Kg	1		8081A	Total/NA
4,4'-DDE	12		2.0		ug/Kg	1		8081A	Total/NA

Client Sample ID: SS1

Lab Sample ID: 720-47342-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	29	B	0.99		mg/Kg	1		8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	90		50		mg/Kg	1		8015B	Silica Gel Cleanup

Client Sample ID: SS2

Lab Sample ID: 720-47342-7

No Detections

Client Sample ID: GUST @4.5'

Lab Sample ID: 720-47342-8

No Detections

Client Sample ID: GUST 2@2'

Lab Sample ID: 720-47342-9

No Detections

Client Sample ID: DUST 3'

Lab Sample ID: 720-47342-10

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: DUST 3' (Continued)

Lab Sample ID: 720-47342-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	17	B	1.0		mg/Kg	1		8015B	Silica Gel Cleanup

Client Sample ID: DUST 8'

Lab Sample ID: 720-47342-11

No Detections

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

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Client Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS1

Lab Sample ID: 720-47342-1

Date Collected: 01/22/13 15:55

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Dieldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Endrin aldehyde	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Endrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Endrin ketone	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Heptachlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Heptachlor epoxide	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
4,4'-DDT	15		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
4,4'-DDE	18		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
4,4'-DDD	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Endosulfan I	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Endosulfan II	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
alpha-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
beta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
delta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Endosulfan sulfate	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Methoxychlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Toxaphene	ND		40		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Chlordane (technical)	ND		40		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
alpha-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
gamma-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	102		57 - 122				01/23/13 13:49	01/24/13 00:18	1
DCB Decachlorobiphenyl	104		21 - 136				01/23/13 13:49	01/24/13 00:18	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS2

Lab Sample ID: 720-47342-2

Date Collected: 01/22/13 16:00

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Dieldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Endrin aldehyde	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Endrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Endrin ketone	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Heptachlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Heptachlor epoxide	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
4,4'-DDT	12		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
4,4'-DDE	25		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
4,4'-DDD	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Endosulfan I	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Endosulfan II	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
alpha-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
beta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
delta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Endosulfan sulfate	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Methoxychlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Toxaphene	ND		39		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Chlordane (technical)	ND		39		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
alpha-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
gamma-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 00:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	107		57 - 122				01/23/13 13:49	01/24/13 00:34	1
DCB Decachlorobiphenyl	120		21 - 136				01/23/13 13:49	01/24/13 00:34	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS3

Lab Sample ID: 720-47342-3

Date Collected: 01/22/13 16:02

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Dieldrin	4.8		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Endrin aldehyde	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Endrin	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Endrin ketone	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Heptachlor	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Heptachlor epoxide	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
4,4'-DDT	4.4		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
4,4'-DDE	14		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
4,4'-DDD	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Endosulfan I	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Endosulfan II	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
alpha-BHC	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
beta-BHC	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
delta-BHC	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Endosulfan sulfate	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Methoxychlor	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Toxaphene	ND		39		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Chlordane (technical)	ND		39		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
alpha-Chlordane	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
gamma-Chlordane	ND		1.9		ug/Kg		01/23/13 13:49	01/24/13 00:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		57 - 122				01/23/13 13:49	01/24/13 00:50	1
DCB Decachlorobiphenyl	112		21 - 136				01/23/13 13:49	01/24/13 00:50	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS4

Lab Sample ID: 720-47342-4

Date Collected: 01/22/13 16:05

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Dieldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Endrin aldehyde	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Endrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Endrin ketone	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Heptachlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Heptachlor epoxide	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
4,4'-DDT	4.5		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
4,4'-DDE	17		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
4,4'-DDD	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Endosulfan I	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Endosulfan II	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
alpha-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
beta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
delta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Endosulfan sulfate	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Methoxychlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Toxaphene	ND		40		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Chlordane (technical)	ND		40		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
alpha-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
gamma-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		57 - 122				01/23/13 13:49	01/24/13 01:07	1
DCB Decachlorobiphenyl	72	p	21 - 136				01/23/13 13:49	01/24/13 01:07	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS5

Lab Sample ID: 720-47342-5

Date Collected: 01/22/13 16:10

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Dieldrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Endrin aldehyde	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Endrin	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Endrin ketone	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Heptachlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Heptachlor epoxide	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
4,4'-DDT	3.7		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
4,4'-DDE	12		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
4,4'-DDD	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Endosulfan I	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Endosulfan II	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
alpha-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
beta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
delta-BHC	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Endosulfan sulfate	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Methoxychlor	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Toxaphene	ND		39		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Chlordane (technical)	ND		39		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
alpha-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
gamma-Chlordane	ND		2.0		ug/Kg		01/23/13 13:49	01/24/13 01:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		57 - 122				01/23/13 13:49	01/24/13 01:23	1
DCB Decachlorobiphenyl	122		21 - 136				01/23/13 13:49	01/24/13 01:23	1

Client Sample Results

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: SS1

Lab Sample ID: 720-47342-6

Date Collected: 01/22/13 15:45

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:25	1
Benzene	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:25	1
Ethylbenzene	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:25	1
Toluene	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:25	1
Xylenes, Total	ND		9.9		ug/Kg		01/23/13 08:00	01/23/13 16:25	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		01/23/13 08:00	01/23/13 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	81		45 - 131	01/23/13 08:00	01/23/13 16:25	1
1,2-Dichloroethane-d4 (Surr)	111		60 - 140	01/23/13 08:00	01/23/13 16:25	1
Toluene-d8 (Surr)	89		58 - 140	01/23/13 08:00	01/23/13 16:25	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	29	B	0.99		mg/Kg		01/23/13 13:51	01/23/13 23:52	1
Motor Oil Range Organics [C24-C36]	90		50		mg/Kg		01/23/13 13:51	01/23/13 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.04		0 - 1	01/23/13 13:51	01/23/13 23:52	1
p-Terphenyl	73		38 - 148	01/23/13 13:51	01/23/13 23:52	1

Client Sample Results

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: SS2

Lab Sample ID: 720-47342-7

Date Collected: 01/22/13 16:00

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:54	1
Benzene	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:54	1
Ethylbenzene	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:54	1
Toluene	ND		4.9		ug/Kg		01/23/13 08:00	01/23/13 16:54	1
Xylenes, Total	ND		9.9		ug/Kg		01/23/13 08:00	01/23/13 16:54	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		01/23/13 08:00	01/23/13 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	82		45 - 131	01/23/13 08:00	01/23/13 16:54	1
1,2-Dichloroethane-d4 (Surr)	109		60 - 140	01/23/13 08:00	01/23/13 16:54	1
Toluene-d8 (Surr)	90		58 - 140	01/23/13 08:00	01/23/13 16:54	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		01/23/13 13:51	01/23/13 23:03	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		01/23/13 13:51	01/23/13 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.004		0 - 1	01/23/13 13:51	01/23/13 23:03	1
p-Terphenyl	98		38 - 148	01/23/13 13:51	01/23/13 23:03	1

Client Sample Results

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: GUST @4.5'

Lab Sample ID: 720-47342-8

Date Collected: 01/22/13 14:15

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8260B - Volatile Organic Compounds by GC/MS (Low Level)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:23	1
Benzene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:23	1
Ethylbenzene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:23	1
Toluene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:23	1
Xylenes, Total	ND		10		ug/Kg		01/23/13 08:00	01/23/13 17:23	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		01/23/13 08:00	01/23/13 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		45 - 131	01/23/13 08:00	01/23/13 17:23	1
1,2-Dichloroethane-d4 (Surr)	113		60 - 140	01/23/13 08:00	01/23/13 17:23	1
Toluene-d8 (Surr)	92		58 - 140	01/23/13 08:00	01/23/13 17:23	1

Client Sample Results

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: GUST 2@2'

Lab Sample ID: 720-47342-9

Date Collected: 01/22/13 14:55

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8260B - Volatile Organic Compounds by GC/MS (Low Level)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:52	1
Benzene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:52	1
Ethylbenzene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:52	1
Toluene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 17:52	1
Xylenes, Total	ND		9.9		ug/Kg		01/23/13 08:00	01/23/13 17:52	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		01/23/13 08:00	01/23/13 17:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		45 - 131				01/23/13 08:00	01/23/13 17:52	1
1,2-Dichloroethane-d4 (Surr)	114		60 - 140				01/23/13 08:00	01/23/13 17:52	1
Toluene-d8 (Surr)	90		58 - 140				01/23/13 08:00	01/23/13 17:52	1

Client Sample Results

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: DUST 3'

Lab Sample ID: 720-47342-10

Date Collected: 01/22/13 15:10

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	17	B	1.0		mg/Kg		01/23/13 13:51	01/23/13 23:28	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		01/23/13 13:51	01/23/13 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.002		0 - 1				01/23/13 13:51	01/23/13 23:28	1
p-Terphenyl	84		38 - 148				01/23/13 13:51	01/23/13 23:28	1



Client Sample Results

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: DUST 8'

Lab Sample ID: 720-47342-11

Date Collected: 01/22/13 15:30

Matrix: Solid

Date Received: 01/23/13 09:27

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		01/23/13 13:51	01/23/13 22:39	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		01/23/13 13:51	01/23/13 22:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.005		0 - 1				01/23/13 13:51	01/23/13 22:39	1
p-Terphenyl	86		38 - 148				01/23/13 13:51	01/23/13 22:39	1



QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8260B - Volatile Organic Compounds by GC/MS (Low Level)

Lab Sample ID: MB 720-129280/1-A

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 11:59	1
Benzene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 11:59	1
Ethylbenzene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 11:59	1
Toluene	ND		5.0		ug/Kg		01/23/13 08:00	01/23/13 11:59	1
Xylenes, Total	ND		10		ug/Kg		01/23/13 08:00	01/23/13 11:59	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		01/23/13 08:00	01/23/13 11:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		45 - 131	01/23/13 08:00	01/23/13 11:59	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	01/23/13 08:00	01/23/13 11:59	1
Toluene-d8 (Surr)	95		58 - 140	01/23/13 08:00	01/23/13 11:59	1

Lab Sample ID: LCS 720-129280/2-A

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	57.0		ug/Kg		114	70 - 144
Benzene	50.0	45.7		ug/Kg		91	70 - 130
Ethylbenzene	50.0	48.5		ug/Kg		97	80 - 137
Toluene	50.0	47.0		ug/Kg		94	80 - 128
m-Xylene & p-Xylene	100	101		ug/Kg		101	70 - 146
o-Xylene	50.0	52.2		ug/Kg		104	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	96		45 - 131
1,2-Dichloroethane-d4 (Surr)	98		60 - 140
Toluene-d8 (Surr)	96		58 - 140

Lab Sample ID: LCS 720-129280/4-A

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	1050		ug/Kg		105	61 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		45 - 131
1,2-Dichloroethane-d4 (Surr)	99		60 - 140
Toluene-d8 (Surr)	98		58 - 140

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8260B - Volatile Organic Compounds by GC/MS (Low Level) (Continued)

Lab Sample ID: LCSD 720-129280/3-A

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	50.0	58.0		ug/Kg		116	70 - 144	2	20
Benzene	50.0	45.7		ug/Kg		91	70 - 130	0	20
Ethylbenzene	50.0	48.1		ug/Kg		96	80 - 137	1	20
Toluene	50.0	46.5		ug/Kg		93	80 - 128	1	20
m-Xylene & p-Xylene	100	101		ug/Kg		101	70 - 146	1	20
o-Xylene	50.0	51.8		ug/Kg		104	70 - 140	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	98		45 - 131
1,2-Dichloroethane-d4 (Surr)	100		60 - 140
Toluene-d8 (Surr)	97		58 - 140

Lab Sample ID: LCSD 720-129280/5-A

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	1000	1050		ug/Kg		105	61 - 128	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		45 - 131
1,2-Dichloroethane-d4 (Surr)	102		60 - 140
Toluene-d8 (Surr)	98		58 - 140

Lab Sample ID: 720-47342-6 MS

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: SS1

Prep Type: Total/NA

Prep Batch: 129280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		49.9	64.3		ug/Kg		129	69 - 130
Benzene	ND		49.9	45.4		ug/Kg		91	70 - 130
Ethylbenzene	ND		49.9	43.6		ug/Kg		87	65 - 130
Toluene	ND		49.9	47.1		ug/Kg		94	70 - 130
m-Xylene & p-Xylene	ND		99.8	89.1		ug/Kg		89	70 - 130
o-Xylene	ND		49.9	46.6		ug/Kg		93	68 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	86		45 - 131
1,2-Dichloroethane-d4 (Surr)	108		60 - 140
Toluene-d8 (Surr)	94		58 - 140

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8260B - Volatile Organic Compounds by GC/MS (Low Level) (Continued)

Lab Sample ID: 720-47342-6 MSD

Matrix: Solid

Analysis Batch: 129241

Client Sample ID: SS1

Prep Type: Total/NA

Prep Batch: 129280

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Methyl tert-butyl ether	ND		49.7	62.2		ug/Kg		125	69 - 130	3	20
Benzene	ND		49.7	44.1		ug/Kg		89	70 - 130	3	20
Ethylbenzene	ND		49.7	43.4		ug/Kg		87	65 - 130	0	20
Toluene	ND		49.7	45.2		ug/Kg		91	70 - 130	4	20
m-Xylene & p-Xylene	ND		99.4	89.6		ug/Kg		90	70 - 130	1	20
o-Xylene	ND		49.7	47.0		ug/Kg		95	68 - 130	1	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	89		45 - 131
1,2-Dichloroethane-d4 (Surr)	109		60 - 140
Toluene-d8 (Surr)	95		58 - 140

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-129270/1-A

Matrix: Solid

Analysis Batch: 129234

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 129270

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	1.06		0.99		mg/Kg		01/23/13 13:51	01/23/13 22:15	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		01/23/13 13:51	01/23/13 22:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Capric Acid (Surr)	0.02		0 - 1	01/23/13 13:51	01/23/13 22:15	1
p-Terphenyl	107		38 - 148	01/23/13 13:51	01/23/13 22:15	1

Lab Sample ID: LCS 720-129270/2-A

Matrix: Solid

Analysis Batch: 129234

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 129270

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Diesel Range Organics [C10-C28]	82.6	59.2		mg/Kg		72	36 - 112

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
p-Terphenyl	99		38 - 148

Lab Sample ID: LCSD 720-129270/3-A

Matrix: Solid

Analysis Batch: 129234

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 129270

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier						
Diesel Range Organics [C10-C28]	82.3	54.0		mg/Kg		66	36 - 112	9	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
p-Terphenyl	90		38 - 148

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 720-47342-6 MS

Matrix: Solid

Analysis Batch: 129234

Client Sample ID: SS1

Prep Type: Silica Gel Cleanup

Prep Batch: 129270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	29	B	82.3	90.0		mg/Kg		74	50 - 150
Surrogate	%Recovery	MS Qualifier	Limits						
<i>p-Terphenyl</i>	60		38 - 148						

Lab Sample ID: 720-47342-6 MSD

Matrix: Solid

Analysis Batch: 129234

Client Sample ID: SS1

Prep Type: Silica Gel Cleanup

Prep Batch: 129270

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	29	B	82.6	73.2		mg/Kg		53	50 - 150	21	30
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>p-Terphenyl</i>	61		38 - 148								

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-129269/1-A

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129269

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Dieldrin	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Endrin aldehyde	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Endrin	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Endrin ketone	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Heptachlor	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Heptachlor epoxide	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
4,4'-DDT	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
4,4'-DDE	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
4,4'-DDD	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Endosulfan I	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Endosulfan II	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
alpha-BHC	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
beta-BHC	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
delta-BHC	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Endosulfan sulfate	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Methoxychlor	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Toxaphene	ND		39		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
Chlordane (technical)	ND		39		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
alpha-Chlordane	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1
gamma-Chlordane	ND		1.9		ug/Kg		01/23/13 13:49	01/23/13 22:56	1

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 720-129269/1-A

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 129269

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	86		57 - 122	01/23/13 13:49	01/23/13 22:56	1
DCB Decachlorobiphenyl	101		21 - 136	01/23/13 13:49	01/23/13 22:56	1

Lab Sample ID: LCS 720-129269/2-A

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 129269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Aldrin	16.5
Dieldrin	16.5	15.8		ug/Kg		95	72 - 120	
Endrin aldehyde	16.5	15.9		ug/Kg		96	57 - 120	
Endrin	16.5	16.0		ug/Kg		96	68 - 120	
Endrin ketone	16.5	16.6		ug/Kg		100	67 - 120	
Heptachlor	16.5	14.5		ug/Kg		88	69 - 120	
Heptachlor epoxide	16.5	15.7		ug/Kg		95	68 - 120	
4,4'-DDT	16.5	15.1		ug/Kg		92	51 - 120	
4,4'-DDE	16.5	16.2		ug/Kg		98	70 - 120	
4,4'-DDD	16.5	17.0		ug/Kg		103	69 - 120	
Endosulfan I	16.5	15.5		ug/Kg		94	62 - 120	
Endosulfan II	16.5	16.5		ug/Kg		99	65 - 120	
alpha-BHC	16.5	14.6		ug/Kg		88	70 - 120	
beta-BHC	16.5	16.4		ug/Kg		99	81 - 120	
gamma-BHC (Lindane)	16.5	15.0		ug/Kg		91	72 - 120	
delta-BHC	16.5	15.8		ug/Kg		95	74 - 120	
Endosulfan sulfate	16.5	16.9		ug/Kg		102	67 - 120	
Methoxychlor	16.5	17.2		ug/Kg		104	61 - 142	
alpha-Chlordane	16.5	15.7		ug/Kg		95	70 - 120	
gamma-Chlordane	16.5	15.6		ug/Kg		94	68 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	90		57 - 122
DCB Decachlorobiphenyl	112		21 - 136

Lab Sample ID: LCSD 720-129269/3-A

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129269

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Aldrin	16.4	15.2		ug/Kg		92	65 - 120	3	20	
Dieldrin	16.4	15.7		ug/Kg		95	72 - 120	1	20	
Endrin aldehyde	16.4	15.2		ug/Kg		92	57 - 120	5	20	
Endrin	16.4	15.7		ug/Kg		95	68 - 120	2	20	
Endrin ketone	16.4	15.9		ug/Kg		97	67 - 120	4	20	
Heptachlor	16.4	15.0		ug/Kg		91	69 - 120	3	20	
Heptachlor epoxide	16.4	16.0		ug/Kg		97	68 - 120	2	20	
4,4'-DDT	16.4	14.7		ug/Kg		89	51 - 120	3	20	
4,4'-DDE	16.4	16.2		ug/Kg		98	70 - 120	0	20	
4,4'-DDD	16.4	16.1		ug/Kg		98	69 - 120	5	20	

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 720-129269/3-A

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 129269

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan I	16.4	15.8		ug/Kg		96	62 - 120	2	20
Endosulfan II	16.4	16.0		ug/Kg		97	65 - 120	3	35
alpha-BHC	16.4	15.1		ug/Kg		92	70 - 120	3	20
beta-BHC	16.4	16.7		ug/Kg		101	81 - 120	2	20
gamma-BHC (Lindane)	16.4	15.5		ug/Kg		94	72 - 120	3	20
delta-BHC	16.4	16.1		ug/Kg		98	74 - 120	2	20
Endosulfan sulfate	16.4	16.3		ug/Kg		99	67 - 120	3	20
Methoxychlor	16.4	16.4		ug/Kg		100	61 - 142	4	20
alpha-Chlordane	16.4	15.8		ug/Kg		96	70 - 120	1	20
gamma-Chlordane	16.4	15.6		ug/Kg		95	68 - 120	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Tetrachloro-m-xylene	92		57 - 122
DCB Decachlorobiphenyl	104		21 - 136

Lab Sample ID: 720-47342-1 MS

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: PS1

Prep Type: Total/NA

Prep Batch: 129269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	ND		16.5	11.7		ug/Kg		71	53 - 120
Dieldrin	ND		16.5	13.6		ug/Kg		82	46 - 130
Endrin aldehyde	ND		16.5	8.30		ug/Kg		50	40 - 120
Endrin	ND		16.5	12.7		ug/Kg		77	32 - 143
Endrin ketone	ND		16.5	15.5		ug/Kg		94	40 - 120
Heptachlor	ND		16.5	11.9		ug/Kg		73	52 - 120
Heptachlor epoxide	ND		16.5	12.7		ug/Kg		77	40 - 120
4,4'-DDT	14		16.5	34.3		ug/Kg		116	17 - 144
4,4'-DDE	17		16.5	35.6		ug/Kg		112	40 - 120
4,4'-DDD	ND		16.5	14.6		ug/Kg		75	40 - 120
Endosulfan I	ND		16.5	12.5		ug/Kg		76	40 - 120
Endosulfan II	ND		16.5	12.7		ug/Kg		77	40 - 120
alpha-BHC	ND		16.5	13.4		ug/Kg		81	40 - 120
beta-BHC	ND		16.5	19.4		ug/Kg		118	40 - 120
gamma-BHC (Lindane)	ND		16.5	16.3		ug/Kg		99	58 - 120
delta-BHC	ND		16.5	13.1		ug/Kg		80	40 - 120
Endosulfan sulfate	ND		16.5	13.0		ug/Kg		79	40 - 120
Methoxychlor	ND		16.5	15.2		ug/Kg		92	40 - 120
alpha-Chlordane	ND		16.5	17.4		ug/Kg		106	40 - 120
gamma-Chlordane	ND		16.5	14.4		ug/Kg		88	40 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Tetrachloro-m-xylene	93		57 - 122
DCB Decachlorobiphenyl	101		21 - 136

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 720-47342-1 MSD

Matrix: Solid

Analysis Batch: 129277

Client Sample ID: PS1

Prep Type: Total/NA

Prep Batch: 129269

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Aldrin	ND		16.4	12.5		ug/Kg		76	53 - 120	7	20	
Dieldrin	ND		16.4	14.0		ug/Kg		85	46 - 130	4	20	
Endrin aldehyde	ND		16.4	11.0	F	ug/Kg		67	40 - 120	28	20	
Endrin	ND		16.4	13.8		ug/Kg		84	32 - 143	9	20	
Endrin ketone	ND		16.4	17.7		ug/Kg		108	40 - 120	13	20	
Heptachlor	ND		16.4	12.4		ug/Kg		75	52 - 120	4	20	
Heptachlor epoxide	ND		16.4	13.4		ug/Kg		81	40 - 120	5	20	
4,4'-DDT	14		16.4	30.8		ug/Kg		95	17 - 144	11	20	
4,4'-DDE	17		16.4	35.7		ug/Kg		113	40 - 120	0	20	
4,4'-DDD	ND		16.4	15.7		ug/Kg		82	40 - 120	7	20	
Endosulfan I	ND		16.4	13.2		ug/Kg		80	40 - 120	6	20	
Endosulfan II	ND		16.4	13.5		ug/Kg		82	40 - 120	9	30	
alpha-BHC	ND		16.4	13.2		ug/Kg		81	40 - 120	1	20	
beta-BHC	ND		16.4	18.8		ug/Kg		115	40 - 120	3	20	
gamma-BHC (Lindane)	ND		16.4	15.5		ug/Kg		94	58 - 120	5	20	
delta-BHC	ND		16.4	13.9		ug/Kg		85	40 - 120	6	20	
Endosulfan sulfate	ND		16.4	14.0		ug/Kg		85	40 - 120	8	20	
Methoxychlor	ND		16.4	17.6		ug/Kg		107	40 - 120	14	20	
alpha-Chlordane	ND		16.4	17.2		ug/Kg		105	40 - 120	1	20	
gamma-Chlordane	ND		16.4	14.7		ug/Kg		89	40 - 120	8	20	
MSD MSD												
Surrogate	%Recovery		Qualifier	Limits								
Tetrachloro-m-xylene	95			57 - 122								
DCB Decachlorobiphenyl	98			21 - 136								

QC Association Summary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

GC/MS VOA

Analysis Batch: 129241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47342-6	SS1	Total/NA	Solid	8260B/CA_LUFT	129280
720-47342-6 MS	SS1	Total/NA	Solid	MS	129280
720-47342-6 MSD	SS1	Total/NA	Solid	8260B	129280
720-47342-7	SS2	Total/NA	Solid	8260B/CA_LUFT	129280
720-47342-8	GUST @4.5'	Total/NA	Solid	MS	129280
720-47342-9	GUST 2@2'	Total/NA	Solid	8260B	129280
LCS 720-129280/2-A	Lab Control Sample	Total/NA	Solid	8260B	129280
LCS 720-129280/4-A	Lab Control Sample	Total/NA	Solid	8260B	129280
LCSD 720-129280/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	129280
LCSD 720-129280/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B	129280
MB 720-129280/1-A	Method Blank	Total/NA	Solid	8260B	129280

Prep Batch: 129280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47342-6	SS1	Total/NA	Solid	5030B	
720-47342-6 MS	SS1	Total/NA	Solid	5030B	
720-47342-6 MSD	SS1	Total/NA	Solid	5030B	
720-47342-7	SS2	Total/NA	Solid	5030B	
720-47342-8	GUST @4.5'	Total/NA	Solid	5030B	
720-47342-9	GUST 2@2'	Total/NA	Solid	5030B	
LCS 720-129280/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCS 720-129280/4-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 720-129280/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
LCSD 720-129280/5-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
MB 720-129280/1-A	Method Blank	Total/NA	Solid	5030B	

GC Semi VOA

Analysis Batch: 129234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47342-6	SS1	Silica Gel Cleanup	Solid	8015B	129270
720-47342-6 MS	SS1	Silica Gel Cleanup	Solid	8015B	129270
720-47342-6 MSD	SS1	Silica Gel Cleanup	Solid	8015B	129270
720-47342-7	SS2	Silica Gel Cleanup	Solid	8015B	129270
720-47342-10	DUST 3'	Silica Gel Cleanup	Solid	8015B	129270
720-47342-11	DUST 8'	Silica Gel Cleanup	Solid	8015B	129270
LCS 720-129270/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	129270
LCSD 720-129270/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	129270
MB 720-129270/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	129270

Prep Batch: 129269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47342-1	PS1	Total/NA	Solid	3546	
720-47342-1 MS	PS1	Total/NA	Solid	3546	
720-47342-1 MSD	PS1	Total/NA	Solid	3546	
720-47342-2	PS2	Total/NA	Solid	3546	
720-47342-3	PS3	Total/NA	Solid	3546	
720-47342-4	PS4	Total/NA	Solid	3546	
720-47342-5	PS5	Total/NA	Solid	3546	

TestAmerica Pleasanton

QC Association Summary

Client: Berlogar Geotechnical
 Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

GC Semi VOA (Continued)

Prep Batch: 129269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-129269/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-129269/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-129269/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 129270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47342-6	SS1	Silica Gel Cleanup	Solid	3546	
720-47342-6 MS	SS1	Silica Gel Cleanup	Solid	3546	
720-47342-6 MSD	SS1	Silica Gel Cleanup	Solid	3546	
720-47342-7	SS2	Silica Gel Cleanup	Solid	3546	
720-47342-10	DUST 3'	Silica Gel Cleanup	Solid	3546	
720-47342-11	DUST 8'	Silica Gel Cleanup	Solid	3546	
LCS 720-129270/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-129270/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-129270/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 129277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47342-1	PS1	Total/NA	Solid	8081A	129269
720-47342-1 MS	PS1	Total/NA	Solid	8081A	129269
720-47342-1 MSD	PS1	Total/NA	Solid	8081A	129269
720-47342-2	PS2	Total/NA	Solid	8081A	129269
720-47342-3	PS3	Total/NA	Solid	8081A	129269
720-47342-4	PS4	Total/NA	Solid	8081A	129269
720-47342-5	PS5	Total/NA	Solid	8081A	129269
LCS 720-129269/2-A	Lab Control Sample	Total/NA	Solid	8081A	129269
LCSD 720-129269/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	129269
MB 720-129269/1-A	Method Blank	Total/NA	Solid	8081A	129269

Lab Chronicle

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: PS1

Date Collected: 01/22/13 15:55

Date Received: 01/23/13 09:27

Lab Sample ID: 720-47342-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			129269	01/23/13 13:49	ND	TAL SF
Total/NA	Analysis	8081A		1	129277	01/24/13 00:18	JZ	TAL SF

Client Sample ID: PS2

Date Collected: 01/22/13 16:00

Date Received: 01/23/13 09:27

Lab Sample ID: 720-47342-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			129269	01/23/13 13:49	ND	TAL SF
Total/NA	Analysis	8081A		1	129277	01/24/13 00:34	JZ	TAL SF

Client Sample ID: PS3

Date Collected: 01/22/13 16:02

Date Received: 01/23/13 09:27

Lab Sample ID: 720-47342-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			129269	01/23/13 13:49	ND	TAL SF
Total/NA	Analysis	8081A		1	129277	01/24/13 00:50	JZ	TAL SF

Client Sample ID: PS4

Date Collected: 01/22/13 16:05

Date Received: 01/23/13 09:27

Lab Sample ID: 720-47342-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			129269	01/23/13 13:49	ND	TAL SF
Total/NA	Analysis	8081A		1	129277	01/24/13 01:07	JZ	TAL SF

Client Sample ID: PS5

Date Collected: 01/22/13 16:10

Date Received: 01/23/13 09:27

Lab Sample ID: 720-47342-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			129269	01/23/13 13:49	ND	TAL SF
Total/NA	Analysis	8081A		1	129277	01/24/13 01:23	JZ	TAL SF

Client Sample ID: SS1

Date Collected: 01/22/13 15:45

Date Received: 01/23/13 09:27

Lab Sample ID: 720-47342-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			129280	01/23/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	129241	01/23/13 16:25	AC	TAL SF

TestAmerica Pleasanton

Lab Chronicle

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: SS1

Lab Sample ID: 720-47342-6

Date Collected: 01/22/13 15:45

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			129270	01/23/13 13:51	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	129234	01/23/13 23:52	DH	TAL SF

Client Sample ID: SS2

Lab Sample ID: 720-47342-7

Date Collected: 01/22/13 16:00

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			129280	01/23/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	129241	01/23/13 16:54	AC	TAL SF
Silica Gel Cleanup	Prep	3546			129270	01/23/13 13:51	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	129234	01/23/13 23:03	DH	TAL SF

Client Sample ID: GUST @4.5'

Lab Sample ID: 720-47342-8

Date Collected: 01/22/13 14:15

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			129280	01/23/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B		1	129241	01/23/13 17:23	AC	TAL SF

Client Sample ID: GUST 2@2'

Lab Sample ID: 720-47342-9

Date Collected: 01/22/13 14:55

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			129280	01/23/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B		1	129241	01/23/13 17:52	AC	TAL SF

Client Sample ID: DUST 3'

Lab Sample ID: 720-47342-10

Date Collected: 01/22/13 15:10

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			129270	01/23/13 13:51	ND	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	129234	01/23/13 23:28	DH	TAL SF

Client Sample ID: DUST 8'

Lab Sample ID: 720-47342-11

Date Collected: 01/22/13 15:30

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			129270	01/23/13 13:51	ND	TAL SF

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Lab Chronicle

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Client Sample ID: DUST 8'

Lab Sample ID: 720-47342-11

Date Collected: 01/22/13 15:30

Matrix: Solid

Date Received: 01/23/13 09:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Analysis	8015B		1	129234	01/23/13 22:39	DH	TAL SF

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Certification Summary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

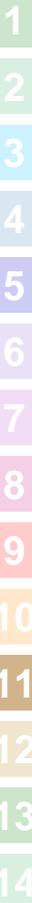
Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds by GC/MS (Low Level)	SW846	TAL SF
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
8081A	Organochlorine Pesticides (GC)	SW846	TAL SF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

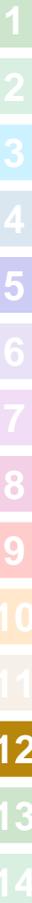


Sample Summary

Client: Berlogar Geotechnical
Project/Site: Abbott Residential

TestAmerica Job ID: 720-47342-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-47342-1	PS1	Solid	01/22/13 15:55	01/23/13 09:27
720-47342-2	PS2	Solid	01/22/13 16:00	01/23/13 09:27
720-47342-3	PS3	Solid	01/22/13 16:02	01/23/13 09:27
720-47342-4	PS4	Solid	01/22/13 16:05	01/23/13 09:27
720-47342-5	PS5	Solid	01/22/13 16:10	01/23/13 09:27
720-47342-6	SS1	Solid	01/22/13 15:45	01/23/13 09:27
720-47342-7	SS2	Solid	01/22/13 16:00	01/23/13 09:27
720-47342-8	GUST @4.5'	Solid	01/22/13 14:15	01/23/13 09:27
720-47342-9	GUST 2@2'	Solid	01/22/13 14:55	01/23/13 09:27
720-47342-10	DUST 3'	Solid	01/22/13 15:10	01/23/13 09:27
720-47342-11	DUST 8'	Solid	01/22/13 15:30	01/23/13 09:27



IBERKLAND@BERLOGAR.COM

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756

Phone: (925) 484-1919 Fax: (925) 600-9902

Email: stjogin@atl-inc.com

Reference #: 143633

Date 1/23 Page 1 of 2

Analysis Request

Report To Attn: IAN BERKLAND Company: BERLOGAR STEVENS & ASSOC Address: 5587 SUNOL BLVD Phone: 925 484 0220 Email: iberkland@berlogar.com Bill To: BSA Attn: IB		Sample ID PS1 PS2 PS3 PS4 PS5 SS1 SS2 GUST@ 4.5' GUST@ 2'		Date 1/22 1/22 1/22 1/22 1/22 1/22 1/22 1/22 1/22	Time 15:55 16:00 16:02 16:05 16:10 15:45 16:00 14:15 14:35	Mat rx S S S S S S S S	Pres erv. 	TPH EPA - 815/8021 <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX	Purgeable Aromatics EPA - 8021 <input type="checkbox"/> 82608 TPH EPA 8015M* <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input checked="" type="checkbox"/> Motor Oil <input type="checkbox"/> Other	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/>	Purgeable Halocarbons (HVOCS) EPA 8021 by 8260B Volatiles Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 824	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 825	<input type="checkbox"/> EPA 8081 <input type="checkbox"/> 808 <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 808 <input type="checkbox"/> PCBs	PCBs <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 808 <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 808	Metals : <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> EPA 6010/7470/7471 <input type="checkbox"/> MMS Metals <input type="checkbox"/> PNAS by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	Low Level Metals by EPA 200.8/6020 (ICP-MS): <input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP	<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O) <input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F	Antons : <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F
--	--	---	--	---	--	---	--	--	---	--	---	--	---	---	---	---	---	--

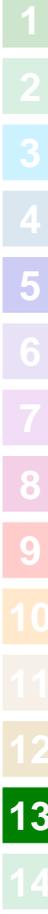
Project Info. Project Name: Abbott Residential Project#: 3450.900 PO#: 12/13/13 Site 5:46 Confirms to record:		Sample Receipt # of Containers: 4 Head Space: 9 Temp: 13.5°C 5:46
1) Relinquished by: Signature: Ian Berkland Printed Name: Ian Berkland Company: BSA	Time: 9:27 Date: 1/23/13	2) Relinquished by: Signature: [Signature] Printed Name: [Name] Company: [Company]
3) Relinquished by: Signature: [Signature] Printed Name: [Name] Company: [Company]	Time: [Time] Date: [Date]	3) Received by: Signature: [Signature] Printed Name: [Name] Company: [Company]

1) Received by: Signature: [Signature] Printed Name: [Name] Company: [Company]	Time: 9:27 Date: 1/23/13	2) Received by: Signature: [Signature] Printed Name: [Name] Company: [Company]
3) Received by: Signature: [Signature] Printed Name: [Name] Company: [Company]	Time: [Time] Date: [Date]	3) Received by: Signature: [Signature] Printed Name: [Name] Company: [Company]

See Terms and Conditions on reverse
 *TestAmerica SF reports 8015M from C₁₀-C₂₄ (industry norm). Default for 8015B is C₁₀-C₂₄



Report To		Analysis Request	
Attn: <u>IAN BERKLAND</u>		<input type="checkbox"/> TPB EPA - 8015/8021 <input type="checkbox"/> 826B <input type="checkbox"/> Gas w/ <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE	
Company: <u>IBERKLAND@BERKLAND</u>		<input type="checkbox"/> Purgeable Aromatics <input type="checkbox"/> BTEX EPA - 8021 <input type="checkbox"/> 826B	
Address: _____		<input type="checkbox"/> TEPH EPA 8015M* <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	
Phone: _____		<input type="checkbox"/> Fuel Tests EPA 826B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/>	
Bill To: _____		<input type="checkbox"/> Purgeable Halocarbons <input type="checkbox"/> (HVOCS) EPA 8021 by 826B	
Attn: _____		<input type="checkbox"/> Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	
Sample ID		<input type="checkbox"/> Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	
Date	Time	<input type="checkbox"/> Oil and Grease <input type="checkbox"/> Petroleum <input type="checkbox"/> (EPA 1664) <input type="checkbox"/> Total	
<u>1/22</u>	<u>15:10</u>	<input type="checkbox"/> Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	
<u>1/22</u>	<u>15:30</u>	<input type="checkbox"/> PNAS by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310 <input type="checkbox"/> CAM17 Metals <input type="checkbox"/> (EPA 6010/7470/7471)	
		<input type="checkbox"/> Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: _____	
		<input type="checkbox"/> Low Level Metals by EPA 200.8/6020 <input type="checkbox"/> (CP-MS): _____	
		<input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP	
		<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O)	
		<input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
		<input type="checkbox"/> Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄	
RUSH			
Project Info. Sample Receipt			
Project Name: <u>Abbott Residential</u>		# of Containers: _____	
Project#: <u>3450-900</u>		Head Space: _____	
PO#: _____		Temp: _____	
Credit Card#: _____		Conforms to record: _____	
<input type="checkbox"/> 5 Day	<input type="checkbox"/> 72h	<input type="checkbox"/> 48h	<input checked="" type="checkbox"/> 24h Other: _____
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> State Tank Fund EDF Special Instructions / Comments: _____			
See Terms and Conditions on reverse *TestAmerica SF reports 8015M from C ₆ -C ₂₄ (industry norm). Default for 8015B is C ₁₀ -C ₂₈			



Login Sample Receipt Checklist

Client: Berlogar Geotechnical

Job Number: 720-47342-1

Login Number: 47342

List Number: 1

Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

TestAmerica analytical Report, 2/22/13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-47785-1
Client Project/Site: 1181 Abbott Ave.

For:
Berlogar Geotechnical
5587 Sunol Boulevard
Pleasanton, California 94566

Attn: Mr. Bill Stevens



Authorized for release by:
2/21/2013 5:29:12 PM

Onieka Howard
Project Manager I
onieka.howard@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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- 12
- 13
- 14



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Definitions/Glossary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Job ID: 720-47785-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-47785-1

Comments

No additional comments.

Receipt

The samples were received on 2/14/2013 1:58 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.7° C and 3.8° C.

GC/MS VOA

No analytical or quality issues were noted.

GC VOA

No analytical or quality issues were noted.

GC Semi VOA

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Detection Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: PS-6@6-12"

Lab Sample ID: 720-47785-1

No Detections

Client Sample ID: PS-7@6-12"

Lab Sample ID: 720-47785-2

No Detections

Client Sample ID: PS-8@6-12"

Lab Sample ID: 720-47785-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	7.0		1.9		ug/Kg	1		8081A	Total/NA
4,4'-DDE	110		1.9		ug/Kg	1		8081A	Total/NA
4,4'-DDD	15		1.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: PS-9@6-12"

Lab Sample ID: 720-47785-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	34		2.0		ug/Kg	1		8081A	Total/NA
4,4'-DDE	88		2.0		ug/Kg	1		8081A	Total/NA
4,4'-DDD	3.3		2.0		ug/Kg	1		8081A	Total/NA

Client Sample ID: SS-3@6-12"

Lab Sample ID: 720-47785-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	3.5		2.0		ug/Kg	1		8081A	Total/NA

Client Sample ID: SS-4@6-12"

Lab Sample ID: 720-47785-7

No Detections

Client Sample ID: SS-5@6-12"

Lab Sample ID: 720-47785-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.9		0.99		mg/Kg	1		8015B	Silica Gel Cleanup
4,4'-DDD	3.3		1.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: SS-6@6-12"

Lab Sample ID: 720-47785-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.1		0.98		mg/Kg	1		8015B	Silica Gel Cleanup

Client Sample ID: SS-7@6-12"

Lab Sample ID: 720-47785-13

No Detections

Client Sample ID: SS-8@6-12"

Lab Sample ID: 720-47785-15

No Detections

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: PS-6@6-12"

Lab Sample ID: 720-47785-1

Date Collected: 02/14/13 09:20

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Dieldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Endrin aldehyde	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Endrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Endrin ketone	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Heptachlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Heptachlor epoxide	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
4,4'-DDT	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
4,4'-DDE	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
4,4'-DDD	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Endosulfan I	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Endosulfan II	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
alpha-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
beta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
delta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Endosulfan sulfate	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Methoxychlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
alpha-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
gamma-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 00:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	107		57 - 122				02/18/13 14:04	02/20/13 00:37	1
DCB Decachlorobiphenyl	73	p	21 - 136				02/18/13 14:04	02/20/13 00:37	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: PS-7@6-12"

Lab Sample ID: 720-47785-2

Date Collected: 02/14/13 09:25

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Dieldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Endrin aldehyde	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Endrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Endrin ketone	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Heptachlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
4,4'-DDT	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
4,4'-DDE	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
4,4'-DDD	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Endosulfan I	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Endosulfan II	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
alpha-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
beta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
delta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Methoxychlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
alpha-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
gamma-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 00:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	107		57 - 122				02/18/13 14:04	02/20/13 00:54	1
DCB Decachlorobiphenyl	92		21 - 136				02/18/13 14:04	02/20/13 00:54	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: PS-8@6-12"

Lab Sample ID: 720-47785-3

Date Collected: 02/14/13 09:05

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Dieldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Endrin aldehyde	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Endrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Endrin ketone	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Heptachlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
4,4'-DDT	7.0		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
4,4'-DDE	110		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
4,4'-DDD	15		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Endosulfan I	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Endosulfan II	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
alpha-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
beta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
delta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Methoxychlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
alpha-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
gamma-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	112		57 - 122				02/18/13 14:04	02/20/13 01:10	1
DCB Decachlorobiphenyl	101		21 - 136				02/18/13 14:04	02/20/13 01:10	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: PS-9@6-12"

Lab Sample ID: 720-47785-4

Date Collected: 02/14/13 09:10

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Dieldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Endrin aldehyde	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Endrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Endrin ketone	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Heptachlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Heptachlor epoxide	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
4,4'-DDT	34		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
4,4'-DDE	88		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
4,4'-DDD	3.3		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Endosulfan I	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Endosulfan II	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
alpha-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
beta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
delta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Endosulfan sulfate	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Methoxychlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
alpha-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
gamma-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 17:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	100		57 - 122				02/18/13 14:04	02/20/13 17:50	1
DCB Decachlorobiphenyl	113		21 - 136				02/18/13 14:04	02/20/13 17:50	1

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-3@6-12"

Lab Sample ID: 720-47785-5

Date Collected: 02/14/13 09:50

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Benzene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Ethylbenzene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Toluene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Xylenes, Total	ND		9.1		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
TBA	ND		9.1		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Ethyl tert-butyl ether	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
DIPE	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
TAME	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		45 - 131				02/15/13 08:00	02/15/13 16:19	1
1,2-Dichloroethane-d4 (Surr)	113		60 - 140				02/15/13 08:00	02/15/13 16:19	1
Toluene-d8 (Surr)	99		58 - 140				02/15/13 08:00	02/15/13 16:19	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		02/19/13 10:04	02/20/13 10:34	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/19/13 10:04	02/20/13 10:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				02/19/13 10:04	02/20/13 10:34	1
p-Terphenyl	92		38 - 148				02/19/13 10:04	02/20/13 10:34	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Dieldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Endrin aldehyde	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Endrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Endrin ketone	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Heptachlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Heptachlor epoxide	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
4,4'-DDT	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
4,4'-DDE	3.5		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
4,4'-DDD	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Endosulfan I	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Endosulfan II	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
alpha-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
beta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
delta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Endosulfan sulfate	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Methoxychlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
alpha-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1
gamma-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 01:44	1

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-3@6-12"

Lab Sample ID: 720-47785-5

Date Collected: 02/14/13 09:50

Matrix: Solid

Date Received: 02/14/13 13:58

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tetrachloro-m-xylene</i>	109		57 - 122	02/18/13 14:04	02/20/13 01:44	1
<i>DCB Decachlorobiphenyl</i>	115		21 - 136	02/18/13 14:04	02/20/13 01:44	1

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Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-4@6-12"

Lab Sample ID: 720-47785-7

Date Collected: 02/14/13 10:10

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Benzene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Ethylbenzene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Toluene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Xylenes, Total	ND		8.9		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Gasoline Range Organics (GRO) -C5-C12	ND		220		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
TBA	ND		8.9		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Ethyl tert-butyl ether	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
DIPE	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
TAME	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 12:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		45 - 131				02/15/13 08:00	02/15/13 12:55	1
1,2-Dichloroethane-d4 (Surr)	115		60 - 140				02/15/13 08:00	02/15/13 12:55	1
Toluene-d8 (Surr)	98		58 - 140				02/15/13 08:00	02/15/13 12:55	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		02/19/13 10:04	02/20/13 11:11	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/19/13 10:04	02/20/13 11:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.03		0 - 1				02/19/13 10:04	02/20/13 11:11	1
p-Terphenyl	82		38 - 148				02/19/13 10:04	02/20/13 11:11	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Dieldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Endrin aldehyde	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Endrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Endrin ketone	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Heptachlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
4,4'-DDT	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
4,4'-DDE	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
4,4'-DDD	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Endosulfan I	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Endosulfan II	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
alpha-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
beta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
delta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Methoxychlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
alpha-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1
gamma-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:01	1

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-4@6-12"

Lab Sample ID: 720-47785-7

Date Collected: 02/14/13 10:10

Matrix: Solid

Date Received: 02/14/13 13:58

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tetrachloro-m-xylene</i>	118		57 - 122	02/18/13 14:04	02/20/13 02:01	1
<i>DCB Decachlorobiphenyl</i>	119		21 - 136	02/18/13 14:04	02/20/13 02:01	1

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Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-5@6-12"

Lab Sample ID: 720-47785-9

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Benzene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Ethylbenzene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Toluene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Xylenes, Total	ND		9.3		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
TBA	ND		9.3		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Ethyl tert-butyl ether	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
DIPE	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
TAME	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131				02/15/13 08:00	02/15/13 16:48	1
1,2-Dichloroethane-d4 (Surr)	114		60 - 140				02/15/13 08:00	02/15/13 16:48	1
Toluene-d8 (Surr)	100		58 - 140				02/15/13 08:00	02/15/13 16:48	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.9		0.99		mg/Kg		02/19/13 10:04	02/20/13 11:35	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/19/13 10:04	02/20/13 11:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 1				02/19/13 10:04	02/20/13 11:35	1
p-Terphenyl	77		38 - 148				02/19/13 10:04	02/20/13 11:35	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Dieldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Endrin aldehyde	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Endrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Endrin ketone	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Heptachlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
4,4'-DDT	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
4,4'-DDE	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
4,4'-DDD	3.3		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Endosulfan I	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Endosulfan II	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
alpha-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
beta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
delta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Methoxychlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
alpha-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1
gamma-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:17	1

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-5@6-12"

Lab Sample ID: 720-47785-9

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 13:58

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tetrachloro-m-xylene</i>	106		57 - 122	02/18/13 14:04	02/20/13 02:17	1
<i>DCB Decachlorobiphenyl</i>	114		21 - 136	02/18/13 14:04	02/20/13 02:17	1

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Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-6@6-12"

Lab Sample ID: 720-47785-11

Date Collected: 02/14/13 10:30

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Benzene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Ethylbenzene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Toluene	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Xylenes, Total	ND		9.1		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
TBA	ND		9.1		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Ethyl tert-butyl ether	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
DIPE	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
TAME	ND		4.5		ug/Kg		02/15/13 08:00	02/15/13 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		45 - 131				02/15/13 08:00	02/15/13 17:17	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140				02/15/13 08:00	02/15/13 17:17	1
Toluene-d8 (Surr)	99		58 - 140				02/15/13 08:00	02/15/13 17:17	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.1		0.98		mg/Kg		02/19/13 10:04	02/20/13 12:00	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		02/19/13 10:04	02/20/13 12:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.06		0 - 1				02/19/13 10:04	02/20/13 12:00	1
p-Terphenyl	93		38 - 148				02/19/13 10:04	02/20/13 12:00	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Dieldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Endrin aldehyde	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Endrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Endrin ketone	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Heptachlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Heptachlor epoxide	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
4,4'-DDT	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
4,4'-DDE	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
4,4'-DDD	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Endosulfan I	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Endosulfan II	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
alpha-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
beta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
delta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Endosulfan sulfate	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Methoxychlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Toxaphene	ND		40		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
Chlordane (technical)	ND		40		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
alpha-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1
gamma-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 02:34	1

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-6@6-12"

Date Collected: 02/14/13 10:30

Date Received: 02/14/13 13:58

Lab Sample ID: 720-47785-11

Matrix: Solid

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tetrachloro-m-xylene</i>	101		57 - 122	02/18/13 14:04	02/20/13 02:34	1
<i>DCB Decachlorobiphenyl</i>	104		21 - 136	02/18/13 14:04	02/20/13 02:34	1

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Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-7@6-12"

Lab Sample ID: 720-47785-13

Date Collected: 02/14/13 11:05

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Benzene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Ethylbenzene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Toluene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Xylenes, Total	ND		9.3		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
TBA	ND		9.3		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Ethyl tert-butyl ether	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
DIPE	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
TAME	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		45 - 131				02/15/13 08:00	02/15/13 17:46	1
1,2-Dichloroethane-d4 (Surr)	115		60 - 140				02/15/13 08:00	02/15/13 17:46	1
Toluene-d8 (Surr)	97		58 - 140				02/15/13 08:00	02/15/13 17:46	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		02/19/13 10:04	02/20/13 12:24	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/19/13 10:04	02/20/13 12:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.003		0 - 1				02/19/13 10:04	02/20/13 12:24	1
p-Terphenyl	95		38 - 148				02/19/13 10:04	02/20/13 12:24	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Dieldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Endrin aldehyde	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Endrin	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Endrin ketone	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Heptachlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
4,4'-DDT	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
4,4'-DDE	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
4,4'-DDD	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Endosulfan I	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Endosulfan II	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
alpha-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
beta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
delta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Methoxychlor	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
alpha-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1
gamma-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/20/13 02:51	1

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-7@6-12"

Lab Sample ID: 720-47785-13

Date Collected: 02/14/13 11:05

Matrix: Solid

Date Received: 02/14/13 13:58

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tetrachloro-m-xylene</i>	111		57 - 122	02/18/13 14:04	02/20/13 02:51	1
<i>DCB Decachlorobiphenyl</i>	97		21 - 136	02/18/13 14:04	02/20/13 02:51	1

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Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-8@6-12"

Lab Sample ID: 720-47785-15

Date Collected: 02/14/13 11:15

Matrix: Solid

Date Received: 02/14/13 13:58

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Benzene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Ethylbenzene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Toluene	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Xylenes, Total	ND		9.3		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Gasoline Range Organics (GRO)	ND		230		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
-C5-C12									
TBA	ND		9.3		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Ethyl tert-butyl ether	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
DIPE	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
TAME	ND		4.6		ug/Kg		02/15/13 08:00	02/15/13 18:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		45 - 131				02/15/13 08:00	02/15/13 18:15	1
1,2-Dichloroethane-d4 (Surr)	113		60 - 140				02/15/13 08:00	02/15/13 18:15	1
Toluene-d8 (Surr)	95		58 - 140				02/15/13 08:00	02/15/13 18:15	1

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		02/19/13 10:04	02/20/13 12:53	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/19/13 10:04	02/20/13 12:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.02		0 - 1				02/19/13 10:04	02/20/13 12:53	1
p-Terphenyl	85		38 - 148				02/19/13 10:04	02/20/13 12:53	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Dieldrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Endrin aldehyde	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Endrin	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Endrin ketone	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Heptachlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Heptachlor epoxide	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
4,4'-DDT	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
4,4'-DDE	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
4,4'-DDD	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Endosulfan I	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Endosulfan II	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
alpha-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
beta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
delta-BHC	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Endosulfan sulfate	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Methoxychlor	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
alpha-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1
gamma-Chlordane	ND		2.0		ug/Kg		02/18/13 14:04	02/20/13 03:08	1

TestAmerica Pleasanton

Client Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-8@6-12"

Lab Sample ID: 720-47785-15

Date Collected: 02/14/13 11:15

Matrix: Solid

Date Received: 02/14/13 13:58

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tetrachloro-m-xylene</i>	104		57 - 122	02/18/13 14:04	02/20/13 03:08	1
<i>DCB Decachlorobiphenyl</i>	115		21 - 136	02/18/13 14:04	02/20/13 03:08	1

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QC Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-130739/1-A

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
Benzene	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
Ethylbenzene	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
Toluene	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
Xylenes, Total	ND		10		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
TBA	ND		10		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
Ethyl tert-butyl ether	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
DIPE	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1
TAME	ND		5.0		ug/Kg		02/15/13 08:00	02/15/13 08:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		45 - 131	02/15/13 08:00	02/15/13 08:56	1
1,2-Dichloroethane-d4 (Surr)	98		60 - 140	02/15/13 08:00	02/15/13 08:56	1
Toluene-d8 (Surr)	102		58 - 140	02/15/13 08:00	02/15/13 08:56	1

Lab Sample ID: LCS 720-130739/2-A

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	65.7		ug/Kg		131	70 - 144
Benzene	50.0	51.2		ug/Kg		102	70 - 130
Ethylbenzene	50.0	49.5		ug/Kg		99	80 - 137
Toluene	50.0	48.5		ug/Kg		97	80 - 128
m-Xylene & p-Xylene	100	106		ug/Kg		106	70 - 146
o-Xylene	50.0	54.0		ug/Kg		108	70 - 140
TBA	1000	981		ug/Kg		98	63 - 130
Ethyl tert-butyl ether	50.0	58.5		ug/Kg		117	70 - 130
DIPE	50.0	57.1		ug/Kg		114	70 - 131
TAME	50.0	61.2		ug/Kg		122	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		45 - 131
1,2-Dichloroethane-d4 (Surr)	105		60 - 140
Toluene-d8 (Surr)	107		58 - 140

Lab Sample ID: LCS 720-130739/4-A

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	1140		ug/Kg		114	61 - 128

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-130739/4-A

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130739

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	108		45 - 131
1,2-Dichloroethane-d4 (Surr)	104		60 - 140
Toluene-d8 (Surr)	109		58 - 140

Lab Sample ID: LCSD 720-130739/3-A

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Methyl tert-butyl ether	50.0	60.9		ug/Kg		122	70 - 144	8	20	
Benzene	50.0	51.9		ug/Kg		104	70 - 130	1	20	
Ethylbenzene	50.0	51.4		ug/Kg		103	80 - 137	4	20	
Toluene	50.0	50.8		ug/Kg		102	80 - 128	5	20	
m-Xylene & p-Xylene	100	110		ug/Kg		110	70 - 146	4	20	
o-Xylene	50.0	55.5		ug/Kg		111	70 - 140	3	20	
TBA	1000	1020		ug/Kg		102	63 - 130	3	20	
Ethyl tert-butyl ether	50.0	55.1		ug/Kg		110	70 - 130	6	20	
DIPE	50.0	54.3		ug/Kg		109	70 - 131	5	20	
TAME	50.0	57.9		ug/Kg		116	70 - 140	6	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	105		45 - 131
1,2-Dichloroethane-d4 (Surr)	98		60 - 140
Toluene-d8 (Surr)	108		58 - 140

Lab Sample ID: LCSD 720-130739/5-A

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO) -C5-C12	1000	1100		ug/Kg		110	61 - 128	3	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	107		45 - 131
1,2-Dichloroethane-d4 (Surr)	102		60 - 140
Toluene-d8 (Surr)	109		58 - 140

Lab Sample ID: 720-47785-7 MS

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: SS-4@6-12"

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	RPD
Methyl tert-butyl ether	ND		43.6	57.0	F	ug/Kg		131	69 - 130	
Benzene	ND		43.6	44.8		ug/Kg		103	70 - 130	
Ethylbenzene	ND		43.6	43.7		ug/Kg		100	65 - 130	
Toluene	ND		43.6	45.0		ug/Kg		103	70 - 130	
m-Xylene & p-Xylene	ND		87.1	91.0		ug/Kg		104	70 - 130	

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-47785-7 MS

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: SS-4@6-12"

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
o-Xylene	ND		43.6	47.4		ug/Kg		109	68 - 130
TBA	ND		871	855		ug/Kg		98	70 - 130
Ethyl tert-butyl ether	ND		43.6	52.3		ug/Kg		120	70 - 130
DIPE	ND		43.6	51.3		ug/Kg		118	70 - 130
TAME	ND		43.6	54.0		ug/Kg		124	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	95		45 - 131
1,2-Dichloroethane-d4 (Surr)	110		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: 720-47785-7 MSD

Matrix: Solid

Analysis Batch: 130710

Client Sample ID: SS-4@6-12"

Prep Type: Total/NA

Prep Batch: 130739

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Methyl tert-butyl ether	ND		47.2	62.0	F	ug/Kg		131	69 - 130	8	20
Benzene	ND		47.2	47.2		ug/Kg		100	70 - 130	5	20
Ethylbenzene	ND		47.2	44.5		ug/Kg		94	65 - 130	2	20
Toluene	ND		47.2	46.4		ug/Kg		98	70 - 130	3	20
m-Xylene & p-Xylene	ND		94.3	92.6		ug/Kg		98	70 - 130	2	20
o-Xylene	ND		47.2	49.0		ug/Kg		104	68 - 130	3	20
TBA	ND		943	945		ug/Kg		100	70 - 130	10	20
Ethyl tert-butyl ether	ND		47.2	55.0		ug/Kg		117	70 - 130	5	20
DIPE	ND		47.2	53.4		ug/Kg		113	70 - 130	4	20
TAME	ND		47.2	57.4		ug/Kg		122	70 - 130	6	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	92		45 - 131
1,2-Dichloroethane-d4 (Surr)	106		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-130893/1-A

Matrix: Solid

Analysis Batch: 130936

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 130893

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		02/19/13 10:04	02/20/13 10:03	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/19/13 10:04	02/20/13 10:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Capric Acid (Surr)	0		0 - 1	02/19/13 10:04	02/20/13 10:03	1
p-Terphenyl	101		38 - 148	02/19/13 10:04	02/20/13 10:03	1

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 720-130893/2-A

Matrix: Solid

Analysis Batch: 130936

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 130893

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.8	61.7		mg/Kg		74	36 - 112
Surrogate		LCS %Recovery	LCS Qualifier				Limits
<i>p-Terphenyl</i>		106					38 - 148

Lab Sample ID: LCSD 720-130893/3-A

Matrix: Solid

Analysis Batch: 130936

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 130893

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	83.2	73.5		mg/Kg		88	36 - 112	17	35
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
<i>p-Terphenyl</i>		110					38 - 148		

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-130837/1-A

Matrix: Solid

Analysis Batch: 130899

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Dieldrin	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Endrin aldehyde	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Endrin	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Endrin ketone	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Heptachlor	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
4,4'-DDT	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
4,4'-DDE	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
4,4'-DDD	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Endosulfan I	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Endosulfan II	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
alpha-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
beta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
delta-BHC	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Methoxychlor	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Toxaphene	ND		39		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
Chlordane (technical)	ND		39		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
alpha-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1
gamma-Chlordane	ND		1.9		ug/Kg		02/18/13 14:04	02/19/13 19:19	1

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 720-130837/1-A

Matrix: Solid

Analysis Batch: 130899

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130837

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	102		57 - 122	02/18/13 14:04	02/19/13 19:19	1
DCB Decachlorobiphenyl	112		21 - 136	02/18/13 14:04	02/19/13 19:19	1

Lab Sample ID: LCS 720-130837/2-A

Matrix: Solid

Analysis Batch: 130899

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Aldrin	16.3	14.3		ug/Kg		88	65 - 120	
Dieldrin	16.3	15.4		ug/Kg		94	72 - 120	
Endrin aldehyde	16.3	15.0		ug/Kg		92	57 - 120	
Endrin	16.3	14.8		ug/Kg		91	68 - 120	
Endrin ketone	16.3	16.0		ug/Kg		98	67 - 120	
Heptachlor	16.3	14.5		ug/Kg		89	69 - 120	
Heptachlor epoxide	16.3	15.4		ug/Kg		94	68 - 120	
4,4'-DDT	16.3	14.4		ug/Kg		88	51 - 120	
4,4'-DDE	16.3	15.8		ug/Kg		97	70 - 120	
4,4'-DDD	16.3	15.9		ug/Kg		98	69 - 120	
Endosulfan I	16.3	15.2		ug/Kg		94	62 - 120	
Endosulfan II	16.3	15.8		ug/Kg		97	65 - 120	
alpha-BHC	16.3	14.8		ug/Kg		91	70 - 120	
beta-BHC	16.3	15.9		ug/Kg		98	81 - 120	
gamma-BHC (Lindane)	16.3	15.0		ug/Kg		92	72 - 120	
delta-BHC	16.3	15.6		ug/Kg		96	74 - 120	
Endosulfan sulfate	16.3	16.2		ug/Kg		100	67 - 120	
Methoxychlor	16.3	16.9		ug/Kg		104	61 - 142	
alpha-Chlordane	16.3	15.4		ug/Kg		95	70 - 120	
gamma-Chlordane	16.3	15.4		ug/Kg		95	68 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	95		57 - 122
DCB Decachlorobiphenyl	111		21 - 136

Lab Sample ID: LCSD 720-130837/3-A

Matrix: Solid

Analysis Batch: 130899

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130837

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
									RPD	Limit
Aldrin	16.1	13.8		ug/Kg		85	65 - 120	4	20	
Dieldrin	16.1	15.1		ug/Kg		94	72 - 120	2	20	
Endrin aldehyde	16.1	14.5		ug/Kg		90	57 - 120	4	20	
Endrin	16.1	14.6		ug/Kg		90	68 - 120	2	20	
Endrin ketone	16.1	15.8		ug/Kg		98	67 - 120	1	20	
Heptachlor	16.1	13.9		ug/Kg		86	69 - 120	4	20	
Heptachlor epoxide	16.1	14.9		ug/Kg		93	68 - 120	3	20	
4,4'-DDT	16.1	14.4		ug/Kg		89	51 - 120	0	20	
4,4'-DDE	16.1	15.6		ug/Kg		97	70 - 120	1	20	
4,4'-DDD	16.1	16.0		ug/Kg		99	69 - 120	1	20	

TestAmerica Pleasanton

QC Sample Results

Client: Berlogar Geotechnical
 Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 720-130837/3-A

Matrix: Solid

Analysis Batch: 130899

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 130837

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Endosulfan I	16.1	14.7		ug/Kg		91	62 - 120	3	20	
Endosulfan II	16.1	15.6		ug/Kg		97	65 - 120	2	35	
alpha-BHC	16.1	14.2		ug/Kg		88	70 - 120	4	20	
beta-BHC	16.1	15.8		ug/Kg		98	81 - 120	0	20	
gamma-BHC (Lindane)	16.1	14.4		ug/Kg		89	72 - 120	4	20	
delta-BHC	16.1	15.4		ug/Kg		96	74 - 120	1	20	
Endosulfan sulfate	16.1	16.1		ug/Kg		100	67 - 120	1	20	
Methoxychlor	16.1	16.9		ug/Kg		105	61 - 142	0	20	
alpha-Chlordane	16.1	15.0		ug/Kg		93	70 - 120	3	20	
gamma-Chlordane	16.1	15.1		ug/Kg		94	68 - 120	2	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	90		57 - 122
DCB Decachlorobiphenyl	108		21 - 136

QC Association Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

GC/MS VOA

Analysis Batch: 130710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-5	SS-3@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-7	SS-4@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-7 MS	SS-4@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-7 MSD	SS-4@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-9	SS-5@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-11	SS-6@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-13	SS-7@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
720-47785-15	SS-8@6-12"	Total/NA	Solid	8260B/CA_LUFT MS	130739
LCS 720-130739/2-A	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	130739
LCS 720-130739/4-A	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	130739
LCSD 720-130739/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	130739
LCSD 720-130739/5-A	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	130739
MB 720-130739/1-A	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	130739

Prep Batch: 130739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-5	SS-3@6-12"	Total/NA	Solid	5030B	
720-47785-7	SS-4@6-12"	Total/NA	Solid	5030B	
720-47785-7 MS	SS-4@6-12"	Total/NA	Solid	5030B	
720-47785-7 MSD	SS-4@6-12"	Total/NA	Solid	5030B	
720-47785-9	SS-5@6-12"	Total/NA	Solid	5030B	
720-47785-11	SS-6@6-12"	Total/NA	Solid	5030B	
720-47785-13	SS-7@6-12"	Total/NA	Solid	5030B	
720-47785-15	SS-8@6-12"	Total/NA	Solid	5030B	
LCS 720-130739/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCS 720-130739/4-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 720-130739/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
LCSD 720-130739/5-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
MB 720-130739/1-A	Method Blank	Total/NA	Solid	5030B	

GC Semi VOA

Prep Batch: 130837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-1	PS-6@6-12"	Total/NA	Solid	3546	
720-47785-2	PS-7@6-12"	Total/NA	Solid	3546	
720-47785-3	PS-8@6-12"	Total/NA	Solid	3546	
720-47785-4	PS-9@6-12"	Total/NA	Solid	3546	
720-47785-5	SS-3@6-12"	Total/NA	Solid	3546	
720-47785-7	SS-4@6-12"	Total/NA	Solid	3546	
720-47785-9	SS-5@6-12"	Total/NA	Solid	3546	

TestAmerica Pleasanton

QC Association Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

GC Semi VOA (Continued)

Prep Batch: 130837 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-11	SS-6@6-12"	Total/NA	Solid	3546	
720-47785-13	SS-7@6-12"	Total/NA	Solid	3546	
720-47785-15	SS-8@6-12"	Total/NA	Solid	3546	
LCS 720-130837/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-130837/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-130837/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 130893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-5	SS-3@6-12"	Silica Gel Cleanup	Solid	3546	
720-47785-7	SS-4@6-12"	Silica Gel Cleanup	Solid	3546	
720-47785-9	SS-5@6-12"	Silica Gel Cleanup	Solid	3546	
720-47785-11	SS-6@6-12"	Silica Gel Cleanup	Solid	3546	
720-47785-13	SS-7@6-12"	Silica Gel Cleanup	Solid	3546	
720-47785-15	SS-8@6-12"	Silica Gel Cleanup	Solid	3546	
LCS 720-130893/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-130893/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-130893/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 130899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-1	PS-6@6-12"	Total/NA	Solid	8081A	130837
720-47785-2	PS-7@6-12"	Total/NA	Solid	8081A	130837
720-47785-3	PS-8@6-12"	Total/NA	Solid	8081A	130837
720-47785-5	SS-3@6-12"	Total/NA	Solid	8081A	130837
720-47785-7	SS-4@6-12"	Total/NA	Solid	8081A	130837
720-47785-9	SS-5@6-12"	Total/NA	Solid	8081A	130837
720-47785-11	SS-6@6-12"	Total/NA	Solid	8081A	130837
720-47785-13	SS-7@6-12"	Total/NA	Solid	8081A	130837
720-47785-15	SS-8@6-12"	Total/NA	Solid	8081A	130837
LCS 720-130837/2-A	Lab Control Sample	Total/NA	Solid	8081A	130837
LCSD 720-130837/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	130837
MB 720-130837/1-A	Method Blank	Total/NA	Solid	8081A	130837

Analysis Batch: 130935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-5	SS-3@6-12"	Silica Gel Cleanup	Solid	8015B	130893
720-47785-7	SS-4@6-12"	Silica Gel Cleanup	Solid	8015B	130893
720-47785-9	SS-5@6-12"	Silica Gel Cleanup	Solid	8015B	130893
720-47785-11	SS-6@6-12"	Silica Gel Cleanup	Solid	8015B	130893
720-47785-13	SS-7@6-12"	Silica Gel Cleanup	Solid	8015B	130893
720-47785-15	SS-8@6-12"	Silica Gel Cleanup	Solid	8015B	130893

Analysis Batch: 130936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-130893/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	130893
LCSD 720-130893/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	130893
MB 720-130893/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	130893

TestAmerica Pleasanton

QC Association Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

GC Semi VOA (Continued)

Analysis Batch: 130973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-47785-4	PS-9@6-12"	Total/NA	Solid	8081A	130837

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Lab Chronicle

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: PS-6@6-12"

Lab Sample ID: 720-47785-1

Date Collected: 02/14/13 09:20

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 00:37	JZ	TAL SF

Client Sample ID: PS-7@6-12"

Lab Sample ID: 720-47785-2

Date Collected: 02/14/13 09:25

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 00:54	JZ	TAL SF

Client Sample ID: PS-8@6-12"

Lab Sample ID: 720-47785-3

Date Collected: 02/14/13 09:05

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 01:10	JZ	TAL SF

Client Sample ID: PS-9@6-12"

Lab Sample ID: 720-47785-4

Date Collected: 02/14/13 09:10

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130973	02/20/13 17:50	JZ	TAL SF

Client Sample ID: SS-3@6-12"

Lab Sample ID: 720-47785-5

Date Collected: 02/14/13 09:50

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			130739	02/15/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	130710	02/15/13 16:19	LL	TAL SF
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 01:44	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			130893	02/19/13 10:04	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	130935	02/20/13 10:34	DH	TAL SF

Lab Chronicle

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-4@6-12"

Lab Sample ID: 720-47785-7

Date Collected: 02/14/13 10:10

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			130739	02/15/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	130710	02/15/13 12:55	LL	TAL SF
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 02:01	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			130893	02/19/13 10:04	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	130935	02/20/13 11:11	DH	TAL SF

Client Sample ID: SS-5@6-12"

Lab Sample ID: 720-47785-9

Date Collected: 02/14/13 10:45

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			130739	02/15/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	130710	02/15/13 16:48	LL	TAL SF
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 02:17	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			130893	02/19/13 10:04	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	130935	02/20/13 11:35	DH	TAL SF

Client Sample ID: SS-6@6-12"

Lab Sample ID: 720-47785-11

Date Collected: 02/14/13 10:30

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			130739	02/15/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	130710	02/15/13 17:17	LL	TAL SF
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 02:34	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			130893	02/19/13 10:04	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	130935	02/20/13 12:00	DH	TAL SF

Client Sample ID: SS-7@6-12"

Lab Sample ID: 720-47785-13

Date Collected: 02/14/13 11:05

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			130739	02/15/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	130710	02/15/13 17:46	LL	TAL SF
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 02:51	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			130893	02/19/13 10:04	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	130935	02/20/13 12:24	DH	TAL SF

TestAmerica Pleasanton

Lab Chronicle

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Client Sample ID: SS-8@6-12"

Lab Sample ID: 720-47785-15

Date Collected: 02/14/13 11:15

Matrix: Solid

Date Received: 02/14/13 13:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			130739	02/15/13 08:00	PD	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	130710	02/15/13 18:15	LL	TAL SF
Total/NA	Prep	3546			130837	02/18/13 14:04	DFR	TAL SF
Total/NA	Analysis	8081A		1	130899	02/20/13 03:08	JZ	TAL SF
Silica Gel Cleanup	Prep	3546			130893	02/19/13 10:04	MP	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	130935	02/20/13 12:53	DH	TAL SF

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



Certification Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

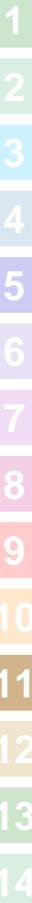
Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF
8081A	Organochlorine Pesticides (GC)	SW846	TAL SF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

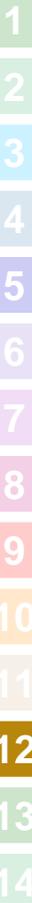


Sample Summary

Client: Berlogar Geotechnical
Project/Site: 1181 Abbott Ave.

TestAmerica Job ID: 720-47785-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-47785-1	PS-6@6-12"	Solid	02/14/13 09:20	02/14/13 13:58
720-47785-2	PS-7@6-12"	Solid	02/14/13 09:25	02/14/13 13:58
720-47785-3	PS-8@6-12"	Solid	02/14/13 09:05	02/14/13 13:58
720-47785-4	PS-9@6-12"	Solid	02/14/13 09:10	02/14/13 13:58
720-47785-5	SS-3@6-12"	Solid	02/14/13 09:50	02/14/13 13:58
720-47785-7	SS-4@6-12"	Solid	02/14/13 10:10	02/14/13 13:58
720-47785-9	SS-5@6-12"	Solid	02/14/13 10:45	02/14/13 13:58
720-47785-11	SS-6@6-12"	Solid	02/14/13 10:30	02/14/13 13:58
720-47785-13	SS-7@6-12"	Solid	02/14/13 11:05	02/14/13 13:58
720-47785-15	SS-8@6-12"	Solid	02/14/13 11:15	02/14/13 13:58



Report To		Sample ID		Date	Time	Mat	Pres	Analysis Request	
Attn: Bill Stevens		556 @ 6-12"		7/19/13	10:30	S	N	<input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTX <input checked="" type="checkbox"/> MTBE <input type="checkbox"/> TPH EPA - 8015/8021 <input checked="" type="checkbox"/> 8260B <input type="checkbox"/> Purgable Aromatics <input type="checkbox"/> BTEX EPA - 8021 <input type="checkbox"/> 8260B <input checked="" type="checkbox"/> TPH EPA 8015M <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other <input checked="" type="checkbox"/> Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input checked="" type="checkbox"/> Five Oxyanates <input type="checkbox"/> DCA <input type="checkbox"/> EDB <input type="checkbox"/> <input type="checkbox"/> Purgable Halocarbons (HVCs) EPA 8021 by 8260B <input type="checkbox"/> Volatile Organics G/M/S (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624 <input type="checkbox"/> Semivolatiles G/M/S <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625 <input type="checkbox"/> Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total <input checked="" type="checkbox"/> Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608 <input type="checkbox"/> PNAS by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310 <input type="checkbox"/> CAM17 Metals (EPA 6010/7470/7471) <input type="checkbox"/> Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: <input type="checkbox"/> Low Level Metals by EPA 200.8/6020 (ICP-MS): <input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP <input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O) <input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄	
Company: B Stevens @ berlogar.com		556 @ 18-24"			10:35			Antions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄	
Address:		557 @ 6-12"			11:05			Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O) Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS	
Phone:		557 @ 18-24"			11:10			W.E.T (STLC) <input type="checkbox"/> TCLP Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O)	
Bill To: BSA		558 @ 6-12"			11:15			Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA Other: Low Level Metals by EPA 200.8/6020 (ICP-MS):	
Email:		559 @ 18-24"			11:20			CAM17 Metals (EPA 6010/7470/7471) Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA Other: Low Level Metals by EPA 200.8/6020 (ICP-MS):	
Sampled By: LB								Antions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄	
Phone:								Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O) Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS	
Attn:								W.E.T (STLC) <input type="checkbox"/> TCLP Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H ₂ O)	

Project Info.

Project Name: _____ # of Containers: **16**

Project#: _____ Head Space: _____

PO#: _____ Temp: _____

Credit Card#: _____ Confirms to record: _____

5 Day 72h 48h 24h Other: _____

Report: Routine Level 3 Level 4 EDD State Tank Fund EDF
 Special Instructions / Comments: _____

Sample Receipt

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: _____ Printed Name: _____ Company: _____	Signature: _____ Printed Name: _____ Company: _____	Signature: _____ Printed Name: _____ Company: _____
Time: _____ Date: _____	Time: _____ Date: _____	Time: _____ Date: _____

See Terms and Conditions on reverse
 *TestAmerica SF reports 8015M from C₉-C₂₄ (industry norm). Default for 8015B is C₁₀-C₂₈



Login Sample Receipt Checklist

Client: Berlogar Geotechnical

Job Number: 720-47785-1

Login Number: 47785

List Number: 1

Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



EXHIBIT 4

PRECONSTRUCTION WESTERN BURROWING OWL SURVEY

October 10, 2012

Duc Development
890 Saratoga Blvd, Suite 201
San Jose, California 95129

Attention: Mr. Al Barnett

**RE: Preconstruction Western Burrowing Owl Survey Report
1181 Abbott Avenue Project Site, Campbell, California**

Dear Mr. Barnett:

1. INTRODUCTION

This letter report has been prepared to present the results of Monk & Associates' (M&A) preconstruction western burrowing owl (*Athene cunicularia hypugaea*) survey at 1181 Abbott Avenue (herein referred to as project site) in Campbell, California (Figures 1-2).

The project site consists of a previously graded building pad otherwise surrounded by small colonies of weedy plants and horticultural escapees growing throughout the site. The most abundant plant species on the project site is morning-glory (*Convolvulus arvensis*). Other species present on the project site included Italian cypress (*Cupressus sempervirens*), alder (*Alnus* sp.), Canary Island date palm (*Phoenix canariensis*), tree of heaven (*Ailanthus altissima*), oleander (*Nerium oleander*), and cherry (*Prunus* sp.).

A paved road (Abbott Avenue) leads up to the project site where it hooks around an existing single family home, which lies within the project site. Abbot Avenue dead ends in a circular paved parking lot on the western portion of the project site. The parking lot backs up to two old wooden sheds and an old wooden four car parking garage on the western most perimeter of the project site.

The area surrounding the project site consists mainly of high density, single-family residential neighborhoods and heavily traveled roadways. The project site is bordered to the north by Westmont Avenue and single-family homes. A small plot of undeveloped land occurs immediately to the east of the project site; further east are additional single-family homes. A stretch of the Santa Clara Country creek lays on the southern perimeter of the project site, and beyond that are more single-family homes. To the west of the project site is Archer Way and additional single-family homes. Other than surface streets and residential dwellings, land uses surrounding the project site include Jack Fischer Park to the south and Westmont High School to the northeast.

Below we discuss the legal status of the western burrowing owl, the burrowing owl's habitat requirements, our field survey methods, results, and recommendations.

2. LEGAL PROTECTION FOR RAPTORS

Western burrowing owls, along with some other species of diurnal raptors, are classified in the State of California as a “species of special concern.” This designation provides protection for these species pursuant to the California Environmental Quality Act (CEQA). Burrowing owls and diurnal raptors are also protected under the Migratory Bird Treaty Act (16 U.S.C. 703-711 and 50 CFR 10.13), and their nests and/or young are protected by California Fish and Game Codes §3505, §3503.5, and §3800. These laws/regulations protect western burrowing owls and other raptors from “take,” which is defined as “harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Thus, this owl species must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

3. WESTERN BURROWING OWL HABITAT REQUIREMENTS

Burrowing owl habitat can be found in annual and perennial grasslands, characterized by low-growing vegetation. Typically, the burrowing owl utilizes rodent burrows, typically California ground squirrel (*Spermophilus beecheyi*) burrows, for nesting and cover. They may also on occasion dig their own burrows, or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, re-using burrows year after year.

Occupancy of suitable burrowing owl habitat can be verified at a site by observation of a pair of burrowing owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (white wash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend the majority of their time sitting at the mouths of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

4. SURVEY METHODS

A preconstruction burrowing owl survey of the project site was conducted by M&A staff wildlife biologist Ms. Molly Peterson on October 4, 2012. Ms. Peterson has extensive experience with the western burrowing owl. During the surveys, Ms. Peterson looked for direct and indirect evidence of burrowing owl occupation of the project site. Evidence of occupation would include a visual sighting of this owl species or the presence of its molt feathers, white wash, pellets, or prey remains. Survey methods included walking transects approximately 20 feet apart to examine the site and adjacent potentially suitable habitats for ground squirrel burrows on or within 250 feet the project site. The surveys also included examinations for indirect evidence of nesting. Such evidence includes the presence of fresh white-wash (i.e., excrement) in a tree or on the ground near a burrow. Also, adult molt feathers, and/or down or feathers from young and/or adults located in relatively high concentrations in the vicinity or entrance of a suitable burrow. Also, evidence of kills (i.e., plucking posts and solitary kills) or pellet piles may indicate use of a tree or locality by nesting raptors.

5. SURVEY RESULTS

No western burrowing owls or signs of these owls were observed during the preconstruction western burrowing owl survey. Also, despite the observance of more than one California ground squirrel (*Otospermophilus beechyi*) on the project site, no burrows that could be used by western burrowing owls, or any burrows even large enough for California ground squirrels, were found within the project site area. Furthermore, the project site had been recently disked which would be likely to deter occupation of the site by western burrowing owls.

Other wildlife species observed in and around the project site area during the preconstruction survey included American crow (*Corvus brachyrhynchos*), rock pigeon (*Columbia livia*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), black phoebe (*Sayornis nigricans*), California towhee (*Pipilo crissalis*), Anna's hummingbird (*Calypte anna*), house finch (*Carpodacus mexicanus*), white-crowned sparrow (*Zonotrichia leucophrys*), ring-billed gull (high fly over), northern mockingbird (*Mimus polyglottos*), and California ground squirrel (*Spermophilus beechyi*).

6. CONCLUSIONS AND RECOMMENDATIONS

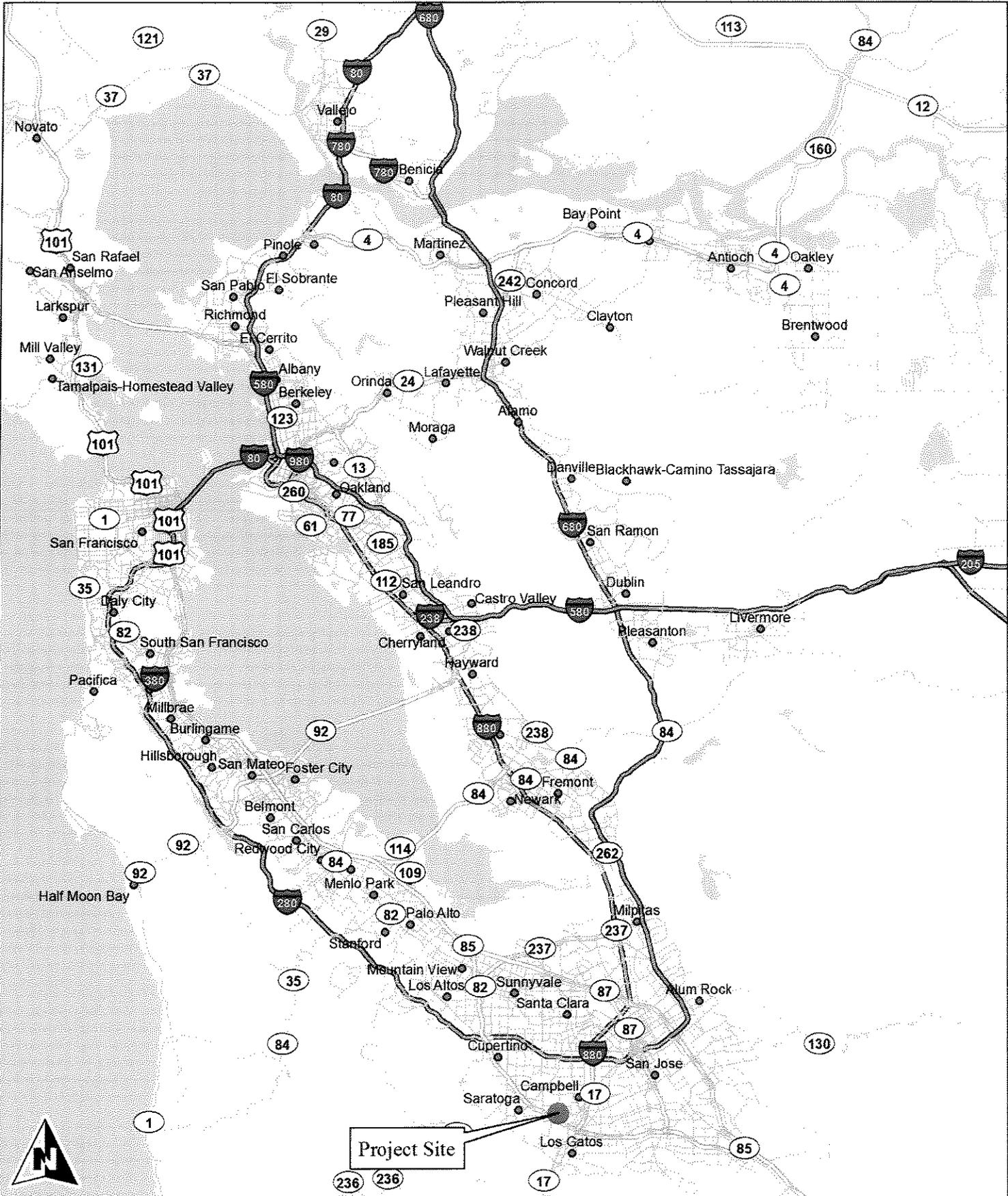
No western burrowing owls were detected on or adjacent to the Abbott Avenue project site. M&A concludes that this project site is not occupied by western burrowing owls and would be unlikely to become occupied by this owl in the near future. Accordingly, there should be no further restrictions for nesting burrowing owls at the Abbott Avenue project site provided construction commences on this project site within 30 days of the survey date, or by November 3, 2012. If construction activities do not commence on this project site in the next 30 days, it is recommended that additional preconstruction western burrowing owl survey(s) be conducted in the 30 day period prior to actual initiation of construction. . Should you have any questions, or wish to discuss any other aspect of this survey, please do not hesitate to call me at (925) 947-4867 extension 211.

Sincerely,



Molly Peterson
Staff Biologist

Attachments: Figures 1, 2, and 3



Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Figure 1. 1181 Abbott Avenue
Project Site Regional Map
Campbell, California

County: Santa Clara
Map Preparation Date: October 3, 2012



Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Figure 2. 1181 Abbott Avenue
Project Site Location Map
Campbell, California

7.5-Minute San Jose West quadrangle
Topography Source: <http://gis.ca.gov>
Map Preparation Date: October 3, 2012



Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Figure 3. Aerial Photograph of the
1181 Abbott Avenue Project Site
Campbell, California

Map Preparation Date: October 3, 2012
Aerial Photograph Source: Bing Maps

EXHIBIT 5

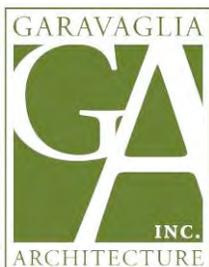
HISTORIC RESOURCE EVALUATION



1181 ABBOTT STREET, CAMPBELL, CA

Historic Resource Evaluation

Prepared for
Community Development Department, Planning Division
Campbell, CA



Prepared by
Garavaglia Architecture, Inc

25 February 2013

Innovating Tradition

INTRODUCTION

PROJECT OVERVIEW

Garavaglia Architecture, Inc. was contracted by the City of Campbell Community Development Department (Planning Division) in January 2013 to prepare a Historical Resources Evaluation (HRE) for the property at 1181 Abbott Avenue, in Campbell, California. This report was requested in connection with a proposed new nine-lot single-family residential subdivision on the site. This HRE will address the subject property's potential eligibility for listing as a historic resource on the California Register of Historical Resources (CRHR) and as a local (City of Campbell) historic resource.

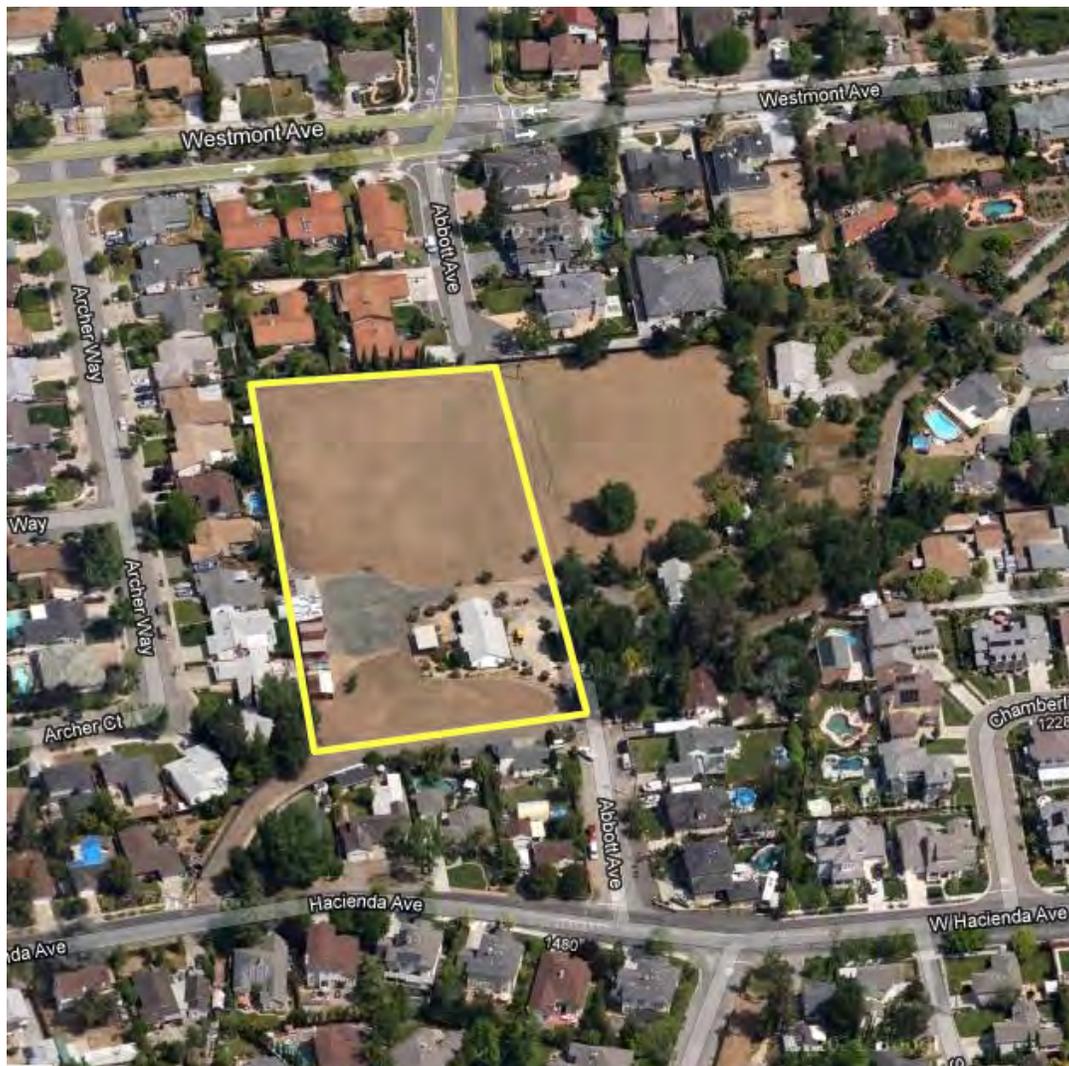


Figure 1. Subject property indicated by yellow outline. (Photo: Google Maps birds eye view, amended by author.)

METHODOLOGY

Garavaglia Architecture, Inc. staff conducted a site visit and survey of the property on 25 January 2013. During this visit, staff documented the property's configuration and architectural elements with photographs and field notes. The client provided copies of the previous study and other relevant documentation prior to the site visit. Garavaglia Architecture Inc. also conducted additional archival research on the subject property and surrounding area to complete the research process. (See References section for complete list of resources.)

PROPERTY DESCRIPTION

The subject property at 1181 Abbott Avenue (APN: 403-15-041) in Campbell, CA consists of a roughly 2.5 acre lot with a one story single-family residence, a covered patio area, and three wood frame storage sheds. A large open field comprises much of the northern portion of the lot, and a smaller open field occupies the south part of the lot. The house and accessory structures are situated in the southern half of the property and accessed by a paved drive. The wood frame sheds back up to the west property line and the covered patio sits just behind the residence.



Figure 2. Composite panorama taken from southeast property access.

The one-story wood frame residence faces east and is topped by a side gable roof clad in composition shingles. The roof plane extends at the front of the house to shelter the full width concrete porch. Wood board and batten siding covers the front elevation and alternating paired and single wood posts support the front roof extension. This elevation features one-over-one windows, and an unglazed wood front door. An addition to the north wall of the residence houses the garage, which is accessed via a wood garage door. The remainder of the house is clad in wood lap siding and a brick chimney pierces the roof plane. Two entry doors are located on the rear elevation, one to the garage and one to the main residence. All windows are covered with some type of material making it difficult to see what is beneath, but it appears that most windows are one-over-one windows of varying sizes. Stone and brick landscaped areas surround the residence, as do many mature trees and smaller plantings. The gazebo, or covered patio, behind the house is a simple flat-roofed structure with wood lattice as wall cladding. The house and gazebo appear to be in generally good condition.

The northernmost storage shed (Shed 1) is rectangular in plan and topped by a corrugated metal clad shed roof. It has two open vehicular bays on the front (east) elevation and all other

walls are clad in vertical wood boards. Like the other two shed structures, the exterior of the building is painted brick red and the interior is generally unpainted.



Figure 3. Detail aerial. (Photo: Google Maps aerial, amended by author.)



Figure 4. Shed 1, looking roughly south.



Figure 5. Shed 2, looking roughly NW.



Figure 6. Shed 3, Looking roughly SW.

The center outbuilding (Shed 2) is a front-facing gable roofed structure flanked by shed-roofed side bays. Corrugated metal covers the roof surfaces and the gable face. The northern wing of this structure may have at one time been used as a worker's cottage, as it is wired for electricity and had shelving and curtains. The front elevation has board and batten siding, but interior is otherwise unfinished. The central bay sits on a concrete slab and is accessed via two wood barn doors made up of narrow vertical strips of beadboard. The interior is unfinished and used for storage. The southern wing has walls of vertical wood boards and wood plywood sheets (south wall). It is accessed on the front (east) wall via an older wood panel door that is missing its glazing. This room is also used for storage.

The third and southernmost outbuilding (Shed 3) is also rectangular in plan and topped by a low-pitched gable roof running north/south. The west wall is clad in wood plywood boards and the other walls with vertical wood boards. Corrugated metal covers the roof surfaces. Turned wood posts, likely salvaged from an older building, support the ridge post on the interior of this shed, and two salvaged windows are set into the east wall.

All outbuildings are in fair to poor condition from neglect and deferred maintenance.

HISTORICAL CONTEXT

Historian Glory Anne Laffey developed a document entitled *Historical Overview and Context Statements for the City of Campbell* in October 1996.¹ It provides a good basis for understanding Campbell's history and development and provides a contextual framework for the evaluation of potential historic resources in the area. A portion of this document is quoted below to provide overall historical background for the purposes of this review. Please see the original document for the full text.

Summary of Geographical Development

This section will review the geographical development within Campbell's downtown core and original city limits, the surrounding agricultural districts, and later suburban development outside the original city limits.

Geographer Jan Broek (1932) identified three agricultural phases through which the Santa Clara Valley passed after 1850. The first phase from 1850 to 1865 was characterized by cattle ranging, extensive wheat cultivation, and all around experimenting with crops. During the second phase, beginning in 1865, wheat farming dominated cattle raising and the foundations were laid for specialization in horticulture. From 1875 through the 1930s, horticulture superseded the declining wheat culture, and many other forms of intensive land utilization were developed under the increasing use of irrigation. The size of the ranches in the valley were closely correlated with these changing land uses. The Mexican ranchos consisted of several thousands of unfenced acres over which cattle ranged. Early American ranchers followed the Mexican practice of free ranging their cattle for some years; however, the spread of farm enclosures and environmental factors caused the large stock ranches to give way to more intensive land use in the form of a smaller stock breeding farms or dairy farms confined to several hundred acres. Wheat farms during this period also ranged from 100 to 500 acres in size, averaging 213 acres in 1880. With the increasing crop value per land unit, the large farm became unnecessary. The correlated increase in land prices, cultivation costs, and growing population led to the all around subdivision of farm lands into highly specialized 'fruit ranches' from 3 to 50 acres in size. By the 1890s, the valley ranked as one of the foremost fruit producing districts on the Pacific Coast.

Until American settlement, the Santa Clara Valley outside the settlements at the mission and the pueblo was largely undeveloped and utilized primarily for the grazing of livestock. In the late 1820s and 1830s, large tracts of land were granted by the Mexican government to California citizens. As each of these ranchos was occupied, the landowners constructed residences, laborers' housing, corrals, grist mills, tanneries, etc., in order to provide the basic needs of the rancho community. Three Mexican settlements are known to have been located within Campbell's city limits.

Farms in the Campbell area developed according to the land use patterns identified by Broek. Early wheat farms consisted of parcels of several hundred acres. With the arrival of the railroad in 1877 and the success of early experiments in fruit packing and canning,

¹ Glory Anne Laffey, *Historical Overview and Context Statements for the City of Campbell*, submitted to the Department of Community Development, Planning Division, City of Campbell, 1 October 1996. A copy is held in the Planning Division's files.

the owners of the large wheat farms around Campbell began subdividing their properties and planting orchards by the early 1880s. Earlier farms were more widespread, and the basic farm complex consisted of a farmhouse, barn, well, windmill and water tower. As the parcel sizes decreased during the horticultural period, fruit processing buildings such as cutting sheds and sulfuring tunnels were added to the farm units.

In November 1882, Benjamin Campbell had surveyor Charles Herrmann survey his property for the Town of Campbell. By 1887, the town had a railroad depot, a post office and a town hall. The first residential lot was sold in 1888; and by 1895, Campbell was a thriving village. The commercial center developed at the intersection of Campbell and Central avenues. The town's first industrial activities centered around the fruit industry. Drying yards, packing houses and canneries developed in close proximity to the railroad depot. Fruit growing and fruit processing industries were the primary economic forces in the Campbell area until the early 1950s.

As drying yards and canneries closed down and their facilities were abandoned, the property was often subdivided for residential or commercial development. Likewise, orchard properties would be also be subdivided. During the first couple of decades, residential development was confined to the original survey and in adjacent areas subdivided on the edge of the village. During the 1890s, residential neighborhoods were centered on S. Second, N. Third, N. Central, N. Harrison, E. Everett, Railway, and Gilman. The first decade of the century saw residential development spread to First and N. Second streets, and Sunnyside and Rincon avenues. Also there was some early residential development on Sunnyside and Parr avenues during this decade. After 1910 the village residential areas expanded to include south Third and Fourth streets, and Alice and Kennedy avenues. Outlying residential areas included Smith Avenue in the San Tomas area east of Campbell, Redding Road in the Union district, and Union Avenue between Campbell Avenue and Dry Creek Road. The 1920s saw development move west along W. Campbell and Latimer avenues, north on Esther Avenue. Also in the late 1920s, there was residential construction on White Oaks Avenue in the Union district. In the 1930s, new subdivisions included Shelley Avenue in the Union district and Rancho Del Patio on the northeast edge of Campbell. Between 1938 and 1942, there were at least fourteen subdivision maps filed in what is now the City of Campbell. Adjacent to Campbell's core were development north along Harrison Avenue, Rosemary Lane, the Hedegard, Bland, and Rees subdivisions east of town, and Shadyvale Court east of Bascom. Five subdivisions were located in the southwest portion of the City in the San Tomas district, i.e., Harriet Avenue, the Munro Tract, Hazelwood, the Riconada Gardens on Hacienda, and the San Tomas Acres and Parrview Tracts near the Hacienda and Winchester intersection. Following the war in the late 1940s, there were over thirty subdivisions filed. These developments were primarily located east of Winchester, as well as several near the intersection of Campbell and Bascom avenues.

By this time, the post-World War II population boom was underway and rural communities were in danger of being swallowed by the aggressive annexation activities of San Jose and other larger cities in the county. Campbell and many of the other smaller communities across the valley incorporated. Since incorporation Campbell has annexed

numerous parcels as the residential development took over the surrounding orchards at a steady pace.²

1181 ABBOTT AVENUE

The subject property at 1181 Abbott Avenue is located in the southwest quadrant of the City of Campbell, surrounded by single-family residential housing developments. A 1953 topographic map shows that the property was at that time in a rural area southwest of Campbell known as San Tomas, likely named after the nearby Arroyo de San Tomas Aquinas (San Tomas Creek). Though some early residential development is visible in the area at that time, much of the land surrounding (and including) the subject property was dominated by orchards.

A series aerial photographs (from 1948, 1956, 1968, 1995, and 2005) identified in an earlier study chronicle the subject property's development and features over time. In 1948, the subject property and all immediately adjacent properties appear to be agricultural fields, with the subject property possibly part of a larger agricultural establishment. This aerial shows a single-family house on an adjacent property to the north of the subject property. By 1956, orchards appear to dominate the area occupied by the subject property, and structures appear in the photograph in the approximate location of the existing residence and accessory buildings indicating that the property had been established by that time. The 1968 photograph shows the property with orchards in the north and south fields and with the buildings in their current locations; residential development had replaced former agricultural land to the west and south. The subject property remained much the same into 1995, though residential tracts by that time surrounded it at the north south and west. Only the lot adjacent to the east remained undeveloped. The 2005 photograph indicates that the orchards had been removed by that time, though surrounding development remained generally the same as in the 1995 photograph.³

Very little specific information is available on the history of the subject property or its inhabitants. Assessor records indicate that the residence was constructed in 1951, and the outbuildings were likely constructed around the same time. A 2012 telephone interview with former executor of the estate Armin McKee indicated that Clemente Tabacco acquired the subject property circa 1960-61 and that the property was dominated by prune orchards at that time. Mr. McKee confirmed that Mr. Tabacco removed the orchards circa 2002-2004.⁴

Clemente J. Tabacco was born in 1918 to Abrams and Christine Tabacco, and was the eldest of their four children. According to the 1920 U.S. Federal Census, the family was living on Summit Road in the Summit Precinct of Santa Cruz County. Abrams, an American of Italian heritage, was working as a fruit farmer. His wife had been born in Italy and both had Italian parents. Several other residents of Italian heritage were also living on Summit Road in the vicinity of the Tabacco family and working in the fruit farming business at that time. By 1940 the family is listed in the Boulder Creek area of Santa Cruz County. Abrams was still working as a fruit farmer and Clemente was employed in the business as an unpaid family worker.⁵ Clemente

² Glory Anne Laffey, *Historical Overview and Context Statements for the City of Campbell*, submitted to the Department of Community Development, Planning Division, City of Campbell (1 October 1996), 9-14.

³ Consulting Engineers Corporation. Phase I Environmental Site Assessment (prepared for Duc Development Company, LLC, 31 July 2012), 9.

⁴ *Ibid*, 11.

⁵ Ancestry.com. 1920 and 1940 United States Federal Census [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2012 (accessed February 2013).

enlisted in the Army in 1941 and was released from duty in 1945. At the time of enlistment he had completed two years of high school.⁶ Research produced no other biographical information on Clemente Tabacco, his wife Laura, or their time at 1181 Abbott Avenue.

A 2012 historical report⁷ conducted on the subject property reported that Clemente Tabacco had grown up in a family of Christmas tree farmers in the Santa Cruz Mountains, but provided no reference to the source of this information. While research was able to confirm that his family was in the fruit farming business in Santa Cruz County, it did not show an association with the Christmas tree industry. The 2012 historical report also stated that Clemente Tabacco purchased the property and constructed the house in or around 1951, which coincides with Assessor records that show a completion date of 1951. No original records were found identifying the original owner or builder of the subject property. In addition, the report stated that Mr. Tabacco operated a weed abatement and tractor business from his property at 1181 Abbott Road. Research produced no information related to Mr. Tabacco's activities while at 1181 Abbott Road.

City directory research shows that the earliest identified listing for the property was in 1970 when its occupants are listed as the Tabacco Brothers. By 1975, Clemente Tabacco is identified as the owner/occupant at that address. In 2007, Armin McKee is shown as resident at 1181 Abbott Avenue.⁸ Mr. Tabacco and his wife Laura had established Mr. McKee as trustee of the subject property in 1993 as part of their Living Trust.⁹ Mr. McKee and Mr. Tabacco were friends for about 30 years.¹⁰ Clemente Tabacco passed away in August 2009.

⁶ National Archives and Records Administration. *U.S. World War II Army Enlistment Records, 1938-1946* [database online]. Provo, UT, USA: Ancestry.com (accessed February 2013).

⁷ Circata Advisors, *Historic Structures Report: Estate of Clemente Tabacco, 1181 Abbott Ave, Campbell, CA*, prepared for Duc Development, 12 November 2012.

⁸ *Ibid*, 10.

⁹ Fidelity National Title Company, *Preliminary Report for 1181 Abbott Avenue, Campbell CA*. Document provided by City of Campbell.

¹⁰ Phase I Environmental Site Assessment, 11.

EVALUATION FRAMEWORK

THE CALIFORNIA REGISTER CRITERIA FOR EVALUATION

The California Register of Historical Resources (CRHR) is the official list of properties, structures, districts, and objects significant at the local, state, or national level. California Register properties must have significance under one of the four following criteria and must retain enough of their historic character or appearance to be recognizable as historical resources and convey the reasons for their significance (i.e. retain integrity). The California Register utilizes the same seven aspects of integrity as the National Register. Properties that are eligible for the National Register are automatically eligible for the California Register. Properties that do not meet the threshold for the National Register may meet the California Register criteria.

1. Associated with events that have made a significant contribution to broad patterns of local or regional history, or cultural heritage of California or the United States;
2. Associated with the lives of persons important to the local, California or national history
3. Embodies the distinctive characteristics of a design-type, period, region, or method of construction, or represents the work of a master, or possesses high artistic value; or
4. Yields important information about prehistory or history of the local area, California, or the nation.

CRHR criteria are similar to National Register of Historic Places criteria, and are tied to CEQA, so any resource that meets the above criteria, and retains a sufficient level of historic integrity, is considered an historical resource under CEQA.

Integrity

When nominating a resource to the NRHP or CRHR, one must evaluate and clearly state the significance of that resource to American history, architecture, archaeology, engineering, or culture. A resource may be considered individually eligible for listing in the NRHP/CRHR if it meets one or more of the above listed criteria for significance and it possesses historic integrity. Historic properties must retain sufficient historic integrity to convey their significance. The National Register recognizes seven aspects or qualities that define historic integrity:

- Location. The place where the historic property was constructed or the place where the historic event occurred.
- Design. The combination of elements that create the form, plan, space, structure, and style of a property.
- Setting. The physical environment of a historic property.
- Materials. The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

- Workmanship. The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling. A property's expression of the aesthetic or historic sense of a particular period of time.
- Association. The direct link between an important historic event or person and a historic property.

To retain historic integrity, a resource should possess several of the above-mentioned aspects. The retention of specific aspects of integrity is essential for a resource to convey its significance. Comparisons with similar properties should also be considered when evaluating integrity as it may be important in deciding what physical features are essential to reflect the significance of a historic context.

CITY OF CAMPBELL

The City of Campbell uses the following review criteria to evaluate properties for listing as historic resource inventory properties or landmarks.

1. Review criteria for historic resource inventory property or landmark. In matters where designation of a historic resource inventory property or landmark are involved, the historic preservation Board and the City Council shall consider the following criteria as guides in making its determination:
 - a. Historical and cultural significance.
 - i. It exemplifies or reflects special elements of the city's aesthetic, architectural, cultural, economic, engineering, political, or social history;
 - ii. It is identified with persons or events significant in local, state, or federal history;
 - iii. It embodies distinctive characteristics of a method, period, style, or type of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
 - iv. It is representative of the notable work of an architect, builder, or designer.
 - b. Architectural, engineering, and historical significance.
 - i. The construction materials or engineering methods used in the proposed historic resource inventory property or landmark are unusual or significant or uniquely effective; or
 - ii. The overall effect of the design of the proposed historic resource inventory property or landmark is unique, or its details and materials are unique, or unusual.
 - c. Neighborhood and geographic setting.
 - i. It materially benefits the historic character of the neighborhood;
 - ii. Its location represents an established and familiar visual feature of the neighborhood, community, or city.

FINDINGS

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

This section uses the historic information discussed above to evaluate property at 1181 Abbott Avenue for historic significance. The CRHR uses generally the same guidelines as the NRHP (developed by the National Park Service); as such, selected language from those guidelines will be quoted below to help clarify the evaluation discussion.

To be potentially eligible for individual listing on the CRHR, a structure must usually be more than 50 years old, must have historic significance, and must retain its physical integrity. The subject property was constructed c. 1951 and therefore meets the age requirement.

Criterion 1 (event)

As stated by the National Park Service (NPS), this criterion “recognizes properties associated with single events, such as the founding of a town, or with a pattern of events, repeated activities, or historic trends, such as the gradual rise of a port city’s prominence in trade and commerce.”¹¹ When considering a property for significance under this criterion, the associated event or trends “must clearly be important within the associated context: settlement, in the case of the town, or development of a maritime economy, in the case of the port city...Moreover, the property must have an important association with the event or historic trends”¹²

The residence and outbuildings at 1181 Abbott Avenue were established c.1951 on property containing prune trees. The land was likely part of an earlier and larger orchard operation that was later subdivided as the fruit industry in Santa Clara County waned. Though the subject property may have been previously associated with the fruit industry in Campbell, “mere association with historic events or trends is not enough, in and of itself, to qualify”¹³ for listing under this criterion. Further, the residence and outbuildings were constructed in the early 1950s, as the fruit business was in decline and as Campbell was experiencing rapid post-World War II suburban development. Though the outbuildings on the property are agricultural in nature, and the north and south fields were once dominated by prune trees, evidence does not indicate that the property is notably associated with Campbell’s agricultural past.

For the reasons discussed above, the subject property does not appear to be eligible for listing as a historical resource under this criterion.

Criterion 2 (person)

This criterion applies to properties associated with individuals whose specific contributions to history can be identified and documented. The NPS defines significant persons as “individuals whose activities are demonstrably important within a local, state, or national historic context. The criterion is generally restricted to those properties that illustrate (rather than commemorate) a person’s important achievements. The persons associated with the property must be individually significant within a historic context.” The NPS also specifies that these

¹¹ National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, online at http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm

¹² Ibid.

¹³ Ibid.

properties “are usually those associated with a person’s productive life, reflecting the time period when he or she achieved significance.”¹⁴

Previous research indicated that Mr. Tabacco operated a weed abatement business while living at 1181 Abbott Avenue, and used the outbuildings to store his tools and machinery. Research did not show that Clemente Tabacco played a significant role in the Campbell area fruit industry during his time at the subject property, nor did it suggest that his activities while at the subject property were demonstrably important to local, State, or national history.

For the reasons discussed above, the subject property does not appear to be eligible for listing as a historical resource under this criterion.

Criterion 3 (design/construction)

Under this criterion, properties may be eligible if they “embody the distinctive characteristics of a type, period, or method of construction, ...represent the work of a master, ...possess high artistic values, or...represent a significant and distinguishable entity whose components may lack individual distinction.”¹⁵

The residence at 1181 Abbott Avenue is simple in design and does not display distinctive characteristics of a type, period, or method of construction, nor does it possess high artistic values. The architect, if there was one, is unknown and the residence therefore does not represent the work of a master. Though the outbuildings are reminiscent of the area’s agricultural past, they are simple utilitarian structures constructed of salvaged materials and are not notable examples of a significant building type or method of construction.

For the reasons discussed above, the buildings contained on the subject property do not appear to be eligible for listing as historical resources under this criterion.

Criterion 4 (information potential)

Archival research and physical investigation of the site focused on the above ground resource only. Therefore, no informed determination could be made regarding the property’s eligibility under this criterion.

INTEGRITY EVALUATION

Evaluation of potential historic resources is a two-part process. A property must meet one or more of the criteria for significance, and possesses historic integrity. Since the property (residence, land, and outbuildings) was not found to exhibit the level of significance necessary for listing on the CRHR, evaluation of the building’s integrity is unnecessary.

CITY OF CAMPBELL

As discussed above, the property at 1181 Abbott Avenue does not have a significant association with the agricultural history of Campbell. It does not exemplify or reflect special elements of Campbell’s agricultural or cultural history and is not important for association with longtime owner Clemente Tabacco (Criteria A/i and A/ii). None of the buildings on the property are

¹⁴ National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.

¹⁵ Ibid.

notable examples of a particular style or type of construction and the architect, if there was one, is unknown (Criteria A/iii and A/iv).

The construction materials are salvaged materials or materials that were, and are, widely available and the construction methods and design of the buildings are not unique or unusual (Criteria B/i and B/ii).

The historic agricultural character of the neighborhood setting has long been lost to suburban development, and the remaining prune trees on the property were removed in the early 2000s (Criteria C/I and C/ii).

For these reasons, the property does not appear to qualify for listing as a local historic resource inventory property or landmark.

CONCLUSION

In summary, the property at 1181 Abbott Avenue does not appear to exhibit the level of significance necessary to warrant listing on the California Register of Historic Places or on the local historic resource inventory.

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APPENDIX A: PHOTOGRAPHS

Existing conditions photographs

All photos by Garavaglia Architecture, Inc., January 2013.



Looking roughly west toward storage sheds from driveway access at Abbott Avenue.



Looking northwest from driveway access at Abbott Avenue.



Looking roughly north from driveway access at Abbott Avenue.



Main residence and semi-circular driveway.



Front entry door, main residence.



Garage entrance, main residence.



Rear elevation, north end of house (showing garage access door), main residence.



Rear elevation, central portion of house (showing rear residential access door), main residence.



Rear elevation, south end of house, main residence.



Covered patio, taken from near storage sheds, looking east.



Interior, covered patio.



Overview Shed 1, looking roughly west.



Overview Sheds 2 & 3, looking roughly southwest.

EXHIBIT 6

EVALUATION OF EXISTING TREE'S REPORT

Evaluation of Existing Tree's Report

**1181 Abbott Ave
Campbell, CA 95008**

Prepared for
Duc Development

Date: November 17th, 2012

Circarta Advisors

A Subsidiary of Circarta Group Inc.

Real Estate-Management-Consultants-Advisors

509 S. Cypress Ave, San Jose, CA 95117



Assignment

This company has been asked to evaluate the existing trees located at 1181 Abbott Ave, Campbell, CA 95008. The property is currently a single family home site with approximately 2.5 acres of land

Summary

A total of 7 trees are included in this inventory. All of the 7 trees are identified by species, briefly described (health, structure integrity) and are rated on a scale of 1-5 more specifically as follows:

- 1 - Excellent
- 2 - Good
- 3 - Fair
- 4 - Poor
- 5 - Extremely poor

Final plans of the proposed project are not available as of the time of this evaluation, therefore the disposition of the trees in relation to the proposed plan have not been provided.

Methods

The trunks of the trees are measured using a standard measuring tape at 4 ½ feet above soil grade (also referred to as DBH or Diameter at Breast Height), except for those specimens whose form does not allow for a representative measurement at this height. The measurement for a multi-stem specimen is taken below the lowest fork on the trunk when possible in accordance with the International Society of Arboriculture standards. The canopy height and spread are estimated using visual references only.

The condition of each tree was observed by visual assessment only from a standing position without climbing or using aerial equipment. No invasive equipment was used. Consequently, it is possible that individual tree(s) may have internal defects, which are not detectable by visual inspection. Invasive exploratory inspection and analysis is beyond the scope of this inspection.

Observations

There are 7 trees included in this tree survey. Of these 7 trees, all are located within the property boundary of 1181 Abbott Ave. There are additional trees located on the neighboring properties toward the North, West and East property boundaries, however it does not appear that any of the trees on the neighboring properties would be impacted by construction on this property, either because of their species or because of their location in relation to the property boundary.

The attached map shows the locations of the 7 trees and their approximate canopy dimensions. Labels by number are affixed to the 7 trees on the attached map.

The health and structure of each specimen is rated on a scale of 1-5:

- 1 - Excellent
- 2 - Good
- 3 - Fair
- 4 - Poor
- 5 - Extremely poor

A working definition of these ratings are:

- (1) "Excellent" indicates outstanding Health and Structural integrity without obvious structural weaknesses
- (2) "Good" usually indicates fine Health but some observed Structural weakness which can typically be improved by cabling or pruning
- (3) "Fair" usually indicates less than desirable but stable Health and often indicates at least one significant structural weakness, which is not observed to be immediately threatening
- (4) "Poor" indicates less than average Health, possibly as a result of disease or insect infestation, presumed to be in a slow decline with unlikely recovery
- (5) "Extremely Poor" indicates significantly declining health with no hope of recovery and possibly Hazardous structural integrity.

Bear in mind that these are rough definitions and there are many variations, all of which cannot be adequately listed here

Comments about Specific Trees

Trees #1 & 2 - European Plums (Stanley Variety – *Prunus domestica L.*) have a rating of (5) as they are both in Extremely Poor health, nearing or at the end of their lifespan with visible structural weakness and noted infestations.

Tree 1



Tree 2



Tree # 3 - Apricot (Blenheim Variety – *Prunus armeniaca L.*) has a rating of (5) as it is in Extremely Poor health nearing or at the end of its lifespan with visible structural weakness noted by board supporting tree as well as noted infestation.

Tree 3



Tree # 4 - Kelly's Gold Box Elder Maple (*Acer negundo*) has a rating of (3) and while it has no visible structural weakness, the tree is leaning significantly, potentially indicating a poor root structure and doesn't appear well adapted for it's location.

Tree 4



Tree # 5 – Fraser Fir (*Abies Fraseri*) has a rating of (4) due to its age, evidence of beetle infestation and the owners topping practice. “Topping” permanently changes the structural integrity of trees. After having been topped, they must be pruned every 1-2 years for their entire lives to reduce the risk of limb failure. While not typical of a Fir tree to suffer limb failure, it is important to note that this particular tree suffers from its owners pruning technique and while not at imminent risk, is nearing the end of its life.

Tree 5



Tree # 6 – Noble Fir (*Abies procera* Rehd.) has a rating of (5) due to its age and condition. While technically a tree, what you see is a vertical outgrowth, sometimes referred to as a “sucker” that has grown from the trunk which at some point had been cut down for reasons unknown. The main trunk system appears to be somewhere around 30-50 years old, and while this outgrowth is currently alive, it appears the root structure and trunk system is not capable of achieving growth and height greater than its current size. This tree appears to be nearing the end of its life.

Tree 6



Tree # 7 – Eureka Lemon (*Citrus limon L.*) has a rating of (3) and while not properly pruned and cared for, appears to be in fair condition overall. This tree also demonstrated topping characteristics. “Topping” permanently changes the structural integrity of trees. After having been topped, they must be pruned every 1-2 years for their entire lives to reduce the risk of limb failure.

Tree 7



Risks to Trees by Proposed Construction

The plans for the proposed project were not available at the time of the Tree Survey. For that reason, recommendations for protection of trees in relation to specific plan features are not included in this report.

The trees at this site would likely be at risk of damage by construction or construction procedures that are common to most construction sites. These procedures may include but not be limited to the dumping or stockpiling of materials over root systems, may include the trenching across the root zones for utilities or for landscape irrigation, or may include construction traffic across the root system resulting in solid compaction and root die back.

If any underground utilities are to be installed, it will be essential that the location of trenches for utilities are dug outside the drip lines of the existing trees.

Final Conclusion and Recommendation

For construction sites with existing, mature trees worthy of saving, this office would normally suggest the builder adhere to a traditional Tree Protection Plan. In this particular instance, most of the trees found on the subject property are in fair to poor condition and nearing the end of their life, effectively mitigating the need to describe and recommend a Tree Protection Plan.

It is our recommendation that the builder refer to a landscaping architect to replace the aging tree population on this subject property with a significant and reasonable balance of tree's suitable for the proposed use.

Tree Location Map

